SELECTIONS

FROM

THE RECORDS

OF THE

MADRAS GOVERNMENT.

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No. XXXVIII.

PAPERS RELATING TO THE BUDGET OF PUBLIC WORKS,

FOR

1856—57.

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PAPERS RELATING TO THE BUD[GET] OF 1856-57.

LETTER FROM J. D. BOURDILLON, ESQ., *Secretary to the Government of Fort St. George, Public Works Department, to* LIEUT.-COL. W. E. BAKER, *Secretary to the Government of India, Public Works Department, Dated 19th March* 1856, *No.* 420.

SIR,

Para 1. I am directed by the Right Honorable the Governor in Council to forward for the purpose of being laid before the Government of India, the accompanying Statements Nos. 1 and 2 of projects of Public Works proposed to be undertaken or continued in this Presidency, during the official year 1856-57.

Statement No. 1. 2. Statement No. 1 comprises works newly brought forward of which the estimated cost is above 25,000 Rupees and which therefore cannot be sanctioned by this Government. Of this description there are fifty-eight projects, involving an estimated aggregate outlay of Rupees 60,13,682 of which sum the portion proposed to be expended during 1856-57 is Rupees 26,93,577.

Statement No 2. 3. The second Statement exhibits the works exceeding 25,000 Rs. of estimated cost, already sanctioned by the Government of India, which will be in course of execution in the approaching official year; and also works not exceeding that year. The sanctioned estimates for the whole of the works in this list amount to Rs. 88,76,807 of which the sum of Rupees 36,58,522 is entered in column 9 as the computed expenditure up to the end of the current official year. The amount required for the expenditure of 1856-57 is set down in column 10 at Rupees 37,07,214.

4. Combining the two Statements, it is seen that the total estimated cost of works other than repairs proposed to be under execution, wholly or in part during the ensuing year under this Presidency, amounts to Rupees 148,90,489 of which amount Rupees 36,58,522 has

already been expended, and Rupees 64,00,791 it is proposed to lay out in that year, leaving Rupees 48,31,176 for future years as shewn below

	Amount of Estimate.	Actual expenditure to Decr. 1855 and probable to 30th April. 1856.	Amount required for expenditure of 1856-57.	Remaining amount available for completion.
	Rupees.	Rupees.	Rupees.	Rupees.
Statement No. 1..	60,13,682	....	26,93,577	33,20,105
Statement No. 2..	88,76,807	36,58,522	37,07,214	15,11,071
Total....	148,90,489	36,58,522	64,00,791	48,31,176

5. In para 2 of your letter of the 14th September last, it was desired that the amount proposed to be expended on repairs should be exhibited in Statement No. 2, in order to render the Budget more complete as a financial document. The Governor in Council has not strictly followed that course; but in a third statement which has been prepared, showing in a condensed form the proposed expenditure under Statements 1 and 2, he has caused columns to be added exhibiting the proposed or probable amount of expenditure in each district on account of repairs also, on each of the three main divisions of works. The following small table is an abstract of that statement; and it will be seen that including repairs, the total expenditure proposed for 1856-57 will be Rupees 82,55,261.

	Irrigation Works.	Communications.	Buildings.	Total.
	Rupees.	Rupees.	Rupees.	Rupees.
Budget No. 1....	4,84,820	14,73,185	7,35,572	26,93,577
Budget No. 2....	10,74,173	20,30,400	6,02,641	37,07,214
Total....	15,58,993	35,03,585	13,38,213	64,00,791
Repairs..........	11,25,630	5,33,845	1,94,995	18,54,470
Grand Total..	26,84,623	40,37,430	15,33,208	82,55,261

6. The amount will no doubt be thought large; but I am directed to point out that no less than 15,33,208 Rupees is for Government buildings, almost the whole being Military, and that there is scarcely any portion of this amount which can be regarded as expenditure for

the benefit of the Public at large, as distinguished from the Government; all but a mere fractional part being either for the accommodation of the servants of Government or the more convenient transaction of its business. I am also directed to observe that it is not at all to be expected that the actual expenditure will equal, or even very nearly approach, the sum thus set down. Various circumstances constantly operate to prevent the execution of works in particular localities or on particular undertakings, to the full extent contemplated ; and assuming that the amount of expenditure proposed, viz. 82½ lacks is sanctioned by the Government of India, as this Government trusts it will be, it seems probable that the actual expenditure will not exceed seventy lacks. It will be observed that no expenditure is set down for the approaching year, on new projects exceeding a lack of Rupees each, because, as these have to be referred for the orders of the Honorable Court of Directors it seems unlikely that sanction should be received in time for operations to commence within that year.

7. Of the fifty-eight projects entered in Statement No. 1 as requiring the sanction of the Government of India, eight* were included in the Budget of 1855-56, and having been fully reported upon in my letter of the 30th March 1855, No. 137, need no further explanation in this place. These projects have been recommended by the Indian Government for the favorable consideration of the Honorable Court of Directors, as intimated in your letters of the 1st June and 14th December 1855 ; and in the absence of any reply from that authority have been re-enterd in the Budget under submission. The remaining projects fifty in number have now to be separately reported on ; and they will be treated of under the following classification.

		Rs.
* No. 7	Samulcottah and Toonee Canal	2,34,305
8.	Junction Canal across the Delta from Mogultoor to Cocanada	1,22,357
9	Samulcottah and Cocanada Canal	1,17,339
12.	High level channel from the Boodoomair to Perikeed ; and from Perikeed to Dendaloor	2,14,385
13.	Do. from Poolairoo to the Canal basin at Masulipatam	2,37,107
16.	Do. from the Toongabuddra to Ingampaud	1,46,787
22-1, 22-2, 22-3,	Road between Cuddapah and Madras	1,92,221
53.	Extension of the East Coast Canal from Doogarauzepatam to the Kistnapatam backwater	1,39,665

Irrigation Works.
Navigation Works.
Trunk Roads.
District Roads.
Buildings.

IRRIGATION WORKS.

8. Of the six projects coming under the first head, the most important are the construction of an Annicut across the Tambrapoorny river, the continuation of the Kistnah southern high level channel from Inganampaud to Inkola; the excavation of a channel along the western bank of the Kistnah from Vullabahpoorum; the enlargement of the channels from the Poiney river, and the improvement of the Calingaroyen channel. These and the other less important projects will be noticed in the order in which they appear in the margin.*

	Rs.
No. 45. Annicut over the Tambrapoorny river in Tinnevelly	3,85,000
No. 17. Southern high level channel from the Kistnah Annicut.......	3,26,100
No. 18. Kistnah Annicut channel from Vullabahpoorum to tide water	1,39,700
No. 32. Poiney Annicut channels in North Arcot........................	1,53,283
No 47. Calingaroyen channel in Coimbatore...	61,898
No. 1. Embanking the Mahanuddee in the Ganjam District	64,840

No. 45. Annicut over the Tambrapoorny river in Tinnevelly—Rupees 3,85,000.

9. This Estimate of 3,85,000 Rupees is for the construction of an Annicut and subsidiary works across the Tambrapoorny river in the Tinnevelly District. It is proposed to have two sets of channels designed both for irrigation and navigation; to be taken, the one from the northern bank of the river to the port of Tuticorin, and the other from the southern bank to the port of Colasagaraputnum; together with branch channels for the supply of numerous tanks. The accompanying sketch shews the country which will be affected by the Annicut; the parts colored yellow being the additional tracts of land which it is expected will be brought into cultivation by means of it and its channels. The Annicut is to be erected at the site of an existing temporary dam which supplies a channel irrigating the village of Keelpadagay on the north bank of the river; and the branch channels to be taken off for the supply of the various tanks both to the north and south of the river are all carefully exhibited in the sketch. The Tambrapoorny rises in the Western ghâts which divide Tinnevelly from the Travancore country; and is thus fed by both monsoons. Near its source, the annual rain-fall is stated to be as much as 300 inches; and the area of country drained by it up to the Murdoor Annicut, twelve miles above the site of the one now proposed, is stated at 1,789 square miles. It is a most valuable irrigating river, being already crossed by no less than

seven Annicuts inclusive of that at Murdoor, yielding a return of seven lacks of Rupees on a cultivated extent of 48,000 acres; the extent under the influence of the Murdoor Annicut and channels alone being 14,000 acres assessed at 1,77,000 Rupees.

10. The Tambrapoorny before it is crossed by any Annicut receives a considerable tributary called the Paumbaur, and long before it reaches the coast, it receives a still greater tributary called the Chittaur; the whole distance that it traverses from its source to the sea being ninety-three miles in extent. From an observation made in Palamcottah in December 1847, it was ascertained that in an ordinary high fresh the quantity of water that passes down this river above the Murdoor Annicut is about 2,110 cubic yards per second; of which quantity only a supply of 120 cubic yards is drawn away by the irrigating channels, and the whole of the remainder, or 1,990 cubic yards per second is lost to the land by flowing into the sea. This large proportion of waste occurs only during high freshes; but it is stated that even when the river is comparatively low, there is still a quantity of water flowing past Streevigoontum, sufficient for irrigating the extent of land, which it is proposed to bring under the influence of the Annicut. Indeed from statements prepared by the Revenue authorities, it has been ascertained that on the average there is never less than four feet of water in the river at Streevigoontum during the cultivating season, or from July to March; and even in April, the average falls very little below this. On the whole, the Civil Engineer is of opinion that the quantity below the Murdoor Annicut, may be safely calculated at never less than $3\frac{2}{3}$ cubic yards per second, which will be sufficient to maintain the cultivation of 7,068 acres; while during the north east Monsoon the channels proposed to be conducted from the Annicut to the north and south of the river, will have a depth of water not less than four and a half feet, with a delivery of 21 cubic yards per second, or 18,14,400 cubic yards per day.

11. Such being the conditions of the river and the expected capabilities of the canals, no apprehension is entertained by the Engineer authorities of a want of water; on the contrary there will be an ample supply for both sets of channels, and the tanks dependent on them. And not only will there be sufficient water for the purposes of irrigation, but for navigation also; so that the interests of agriculture and

those of general trade will be subserved, without the one clashing with the other. The Civil Engineer has suggested that for the present so much only of the project as will suffice for the purposes of irrigation, may be undertaken, at an expenditure of one lack of Rupees less than the outlay estimated for the entire project; and that the locks designed to adapt the channels to the purposes of navigation, may be left to a future date ; but the Governor in Council is of opinion that the works should be undertaken as a whole. On this point the language of the Chief Engineer may be quoted. "Taking into consideration," he says, "the great importance of cheapening the transport of grain and other produce as much as possible, and looking to the increasing trade of both the Ports at which the canals will terminate, I am entirely in favor of undertaking the works as a complete scheme, and thus opening to the richest parts of Tinnevelly ample means of disposing of their surplus produce. The sections and slopes of the channels are sufficient for every purpose, and thus will be commenced the southern part of that inland navigation which has been proposed as one of the main improvements of this Presidency."

12. The returns calculated by the Collector as given in the Civil Engineer's letter, shew a total of 46,346 Rupees a year being at the rate of 16 per cent on the outlay of 2,85,000 Rupees necessary for the works of irrigation only; or 12 per cent on the whole sum of 3,85,000 Rupees, including the cost of works intended purely for navigation. This expectation of increase is based on the extent of available land already classed as "Nunjah" or irrigated, and even this is sufficiently promising to render the project worthy of execution. The Collector confines his expectation chiefly to the north side of the river; but the experienced and careful Civil Engineer who designed the project, expects that a fully equal extent will be cultivated on the south side, and that the annual return on the tract of land that will be really affected by the Annicut will be about or about double the amount stated above, 36 per cent on the irrigation outlay. The Government are of opinion that much weight is due to the opinion of the Civil Engineer Captain Horseley on a case of this nature, of which he has so fully examined the local circumstances. But even limiting the expectation to the Collector's estimate of 46,346 Rupees, a return of 12 per cent will be shewn on the whole outlay, inclusive of the charges appertaining to the navigation only.

13. The proposed annicut is to be 1,382 feet in length and six feet in height above the mean level of the river bed, the width at the crown being seven and a half feet. It will be built of brick masonry and faced with stone; and will be amply provided with aprons of cut and rough stone; the foundations of the whole being securely laid on wells. It will be provided with a lock for purposes of navigation, and under-sluices for the clearance of silt and sand. The Chief Engineer considers the whole plan of the Annicut well designed and approves of its details generally. A bridge of thirty three arches of thirty six feet span is to be built over the Annicut on piers fifteen feet high with a roadway fifteen feet wide between the parapets. This is considered to be a very useful and important part of the project; indeed it may be called indispensable, considering the great traffic across the river at the site of the Annicut and the impediment which it would offer if unprovided with a bridge. Several other works are to be constructed in connection with the channels; which will all be found carefully detailed in the Civil Engineer's letter.

14. All the works of distribution are considered by the Chief Engineer to be carefully and skilfully planned, and the arrangements altogether judicious and complete. The rates of the estimate are those prevalent in the district, and it is considered that they will be found sufficient. It may be added that the present scheme does not exhaust the capabilities of the Annicut; the northern channel is capable of being extended twenty miles further to the Vypaur river, thus giving that additional extent of navigable canal.

No. 17. Continuation of the southern high level channel from the Kistnah Annicut—Rupees 3,26,100.

15. No. 17 is an Estimate amounting to Rs. 3,26,100 for extending the southern high level channel from the Kistnah annicut at Beizwarah. The additional length will be nearly thirty nine miles and by means of the extension, water will be carried to the southern boundary of the Guntoor district to a point sixty five miles distant from the annicut. The canal is to follow the western edge of the Delta; and running as it will on a high level, it will command throughout the distance it traverses all the country lying to the east of it, as far as the channel called the new Toongabuddra marked in the sketch, and the sea. The extent of land that will eventually be

brought under the influence of this channel will be limited only by the capacity which may be given to it; but all this land is stated to be now either rudely cultivated with inferior and uncertain crops at a low assessment, or the portions of it which are rich and bear a higher assessment are held as waste for grazing at a merely nominal rent. There seems no doubt therefore that the improvement now proposed by ensuring a steady supply of water, will be attended by ample returns in an increased revenue, as well as in the general amelioration of the condition of the country and of its inhabitants. Independently however of revenue considerations, the propriety of excavating the canal may be affirmed on still stronger grounds; the annicut having been successfully completed there exist the means of throwing into the canal a never failing stream of water which will materially contribute to prevent those periodical famines which have unhappily affected this part of the country, as a constant supply of water will thus be spread over an extensive tract, not only for irrigation, but also for the consumption both of the people and of their cattle during seasons of drought.

16. Another advantage of the work will be to afford water carriage to the southern extremity of the Guntoor district; with this extension and those previously sanctioned or recommended for the sanction of the Honorable Court, there will be a continuous line of navigable canal from Toonce on the north to Inkola on the south, a distance of 212½ miles.

17. The canal now proposed will have so light a fall in its bed, that its banks will admit of the surface of the water being brought to a dead level, so that its navigation will be continued even when the water in the Kistnah is at its minimum. The high level which has been preserved throughout will obviate the necessity of any locks; but several and in three cases extensive works will be required for passing streams, the drainage of the country, under the bed of the canal. These works will not only serve to carry the canal over the streams crossing the line, but will also form bridges over those streams for the northern Trunk road. The Civil Engineer has calculated for a velocity in the currents under the canal at 12,000 yards per hour; and to provide against any apprehension, the flooring of the tunnels will be laid on a level considerably below the bed of the streams, and

will be of stone three feet in thickness. The different portions of the Estimate may be briefly summed up as follows.

	Rupees.
Earthwork of canal, superintendence, sundries, &c.	1,68,340
16 Tunnels for conducting streams under the canal.	1,20,250
14 other Tunnels............................	17,460
200 Irrigating sluices........................	20,050
Total. .	3,26,100

No. 18. Kistnah Annicut Channel from Vullabahpoorum, to tide water on the southern bank—Rupees 1,39,700.

18. This Estimate of 1,39,700 Rs. is for opening one of the proposed main channels from the Kistnah annicut on the southern or Guntoor bank of the river, from Vullabahpoorum to tide water. The channel is to run upon the high ground immediately contiguous to the bank of the river; and the area which will be irrigated by it is computed at 1,00,000 acres of the finest land. It has been already partially excavated, earth having been taken from the intended line of this channel to form the river embankment. The Civil Engineer reports that the exact increase of revenue cannot be stated or the period within which it will be realized; but that taking as little as 1 Rupee an acre as the rate of increased revenue which the land will yield, when brought under such full irrigation, the additional return may be computed at one lack of rupees per annum on an outlay of Rupees 1,39,700, irrespective of that which may be looked for from the cultivation of the large extent of land now lying waste. The estimated increased charge for the water as stated by the Civil Engineer is extremely moderate, so that it cannot be doubted that a very large return in direct revenue will be obtained for the proposed outlay. It must be added indeed that this Estimate does not represent the whole cost of bringing the water to the land, as many minor channels of distribution will remain to be excavated, as well as bridges and other works. But supposing even as much as two lacks of Rupees to be eventually required for those objects, still there seems good reason to anticipate a return of 25 or 30 per cent on the whole outlay, in the form of direct revenue.

19. The entire length of the channel will be forty miles and it will be navigable during a considerable portion of the year. It will

be of great capacity, with a fall of from 6 to 14 inches a mile. Eventually this Canal may be made navigable throughout the year; but at present it has been thought better to defer the construction of the locks necessary for that purpose. The present project is brought forward as an important part of a great scheme, and the estimate is calculated on the usual data. It comprizes the following details summed up in brief.

	Rupees.
Earthwork and superintendence................	99,770
Sluices (7 large and 40 small)................	11,960
1 Lock and Calingulah at the southern extremity with wooden foot bridge over the latter, and superintendence.........................	27,970
Total..	1,39,700

No. 32. Poiney Annicut Channel—Rupees 1,53,283.

20. In submitting the Budget of 1854-55, Sir Henry Montgomery in his letter dated 11th October 1854, No. 435, paras 15 to 21, reported fully upon a project for irrigating a large tract of country in the North Arcot district, by taking off channels from both sides of the Poiney river. An item of Rupees 31,206 for an Annicut and foot bridge across that river was entered in that budget; and it was stated in the report that the remainder of the project was likely to cost about 1,38,237 Rupees. Upon more careful investigation however, the estimated outlay is now stated at Rupees 1,49,000; which, added to a sum of Rupees 4,283 to be given in compensation for land taken up, raises the entire estimated expenditure to Rupees 1,53,283.

21. As already reported on the occasion above referred to, a commencement was made in the works connected with this project in 1853, by cutting a channel from the Poiney river at a cost of Rupees 9,986, to supply several tanks in the Sholinghur talook; and in the following year a head sluice was erected at a cost of Rupees 3,268, on a scale sufficient for the much larger channels which it is now proposed to take off at the same point, in connection with the Annicut, and on such a plan as to form the eastern extremity of that structure. The present estimates provide for channels to be taken off from both

sides of the river. That on the west will be a single main channel, to supply a number of tanks in the Trivellum talook. That on the east side will be divided into three principal branches; one will strike southwards by Tagaracooppum to Vanapady, Amoor, &c. and ultimately reach the Mahandravaudy tank, an ancient tank of very large size, breached and useless for very many years, but now in course of restoration in connection with the Palaur annicut project. The main channel will go to the Parincanjy tank; and being continued from its northern end; will divide into two parts. One part will supply the Carical tank or basin to be formed as part of the project, to contain twenty two million cubic yards of water; and thence eastwards as far as Moosoor. The other will take a south-easterly direction and fill a number of tanks, and finally reach the fine tank of Nagavaid.

22. The particulars of the revenue return to be expected from the works are shewn in the accompanying statement (marked E 24). The expectation is based on the following grounds. The average cultivation and revenue during the last ten years under the tanks to be benefitted is taken; and the difference between that average and the highest year is set down as certain gain when the supply of water is made permanent; because that is the extent which the ryots have proved themselves ready to cultivate whenever a supply came even casually and unexpectedly. Careful enquiries have further been made in all the villages, as to the additional lands which the ryots will undertake to cultivate as Nunjah if water is supplied, and the result is entered in the statement. From the total probable cultivation thus obtained, deductions are made; first, ten per cent for land to be probably left waste from various causes, such as an occasional scarcity of water &c., and secondly, twelve and half per cent on the remaining supposed actual cultivation, that being the customary remission on the assessment throughout the talooks affected by these channels. The remainder, after these deductions, is taken as expected increase of revenue; and it is confidently expected that the result thus arrived at will be actually found to be within the truth. No land not undertaken by the ryots has been included; but there is no doubt that much more land will be capable of irrigation, and will be gradually occupied when once water is actually provided.

23. Upon this moderate assumption, the expectation of increase of direct revenue is as follows.

		Rupees.
1.	Under the western or Mailpaudy Channel	4,036
2.	Under the Tagaracooppum and Amoor Channel	4,927
3.	Under the Carical and Moosoor Channel	7,264
4.	Under the Nagavaid branch	5,965
	Total	22,192

This is about 14½ per cent on the outlay. In addition to this gain to Government, the advantage to the ryot must be taken; and assuming that out of every hundred Rupees value produced on land the Government gets forty, the direct gain to the ryot and to the labourer by the projected works will be about 32,800 Rupees a year. Independently however of the pecuniary gain both to the Government and to the ryot, this project has the additional recommendation as noticed in the former report, that the tract of country to be affected by it, and especially the talook of Sholinghur which will be chiefly benefitted, is peculiarly destitute both of water and of the means of retaining it. The effect of this want is shewn in the statement already referred to. The highest revenue in the ten years from the works to be benefitted by the Moosoor Channel is 23,475 Rupees, while the lowest is only 11,918 Rupees or less than half; the highest revenue from the works to be affected by the Nagavaid Channel is 17,937 Rupees while the lowest is only 9,392 Rupees, being little more than half. The cause of this large fluctuation is nothing but the precariousness of the water supply, injurious both to the ryot and to the labourer; to the former, as he has to keep up his stock in permanent readiness for water which now only comes occasionally; and to the latter, as it seriously diminishes his chances of employment and his means of living. The Estimate comprizes the following items.

		Rupees.
1.	Widening the Poiney channel (already excavated in 1853) from the head sluice to Tagaracooppum.	6,920
2.	Widening and improving the channel from Chenganattum to Parincanjee, embankment, calingulah, &c.	5,114
3.	Constructing a head sluice and bridge for the north channel from Parincanjee to Carical.	1,990

		Rupees.
4.	Cutting a channel from do. to do.; constructing two calingulahs and repairing bund of Carical reservoir..........................	37,209
5.	Cutting a channel from Carical to Moosoor, constructing calingulahs, and head sluice for Carical tank; repairing Cattairy tank, &c............	26,507
6.	Cutting a channel (western) to Mailpaudy tank, and from the latter to Veerantangle, and thence to Abdoolaveram and Tampully tanks........	11,982
7.	Cutting channel from Veerantangle to Yellanoor tank and constructing masonry fall..........	5,140
8.	Constructing head sluice and bridge at junction of southern branch with the Poiney eastern channel and calingulah....................	2,784
9.	Cutting channel at junction of southern branch with Poiney eastern channel from Surpantangle to Amoor; constructing head sluice, calingulahs, bridge for road, &c	41,147
10.	Cutting channel from Tagaracooppum Cattairy to lands under the tank....................	109
	Superintendence and sundries.................	10,047
	Total of Estimate..	1,49,000
	Add for compensation to be given for land in Carical basin..........................	4,283
	Total Estimated expenditure..	1,53,283

No. 47. Calingaroyen Channel in Coimbatore—Rupees 64,898.

24. This Estimate of 64,898 Rupees provides for repairing, improving, and extending, the Calingaroyen channel in the Coimbatore district. This is a highly important irrigation canal fifty two miles in length, issuing from the Bowany before its junction with the Cauvery. Its value for Irrigation is as shewn below.

	Rs.	A.	P.
Assessment of Government lands watered by it in Fusly 1259..........................	87,499	8	0
Tarum Assessment of Enam lands watered by it.	13,307	2	4
Total..	1,00,806	10	4

25. In the absence of Engineer Officers which has prevailed hitherto, or at least up to a very recent date, this valuable work has been allowed to remain almost untouched during the period of above half a century that the country has been under the British Indian Government; no adequate efforts having been made to arrest the natural progress of decay in such works, and nothing whatever attempted for the further development of its usefulness. In December 1850, Captain (now Lieutenant Colonel) Frederick Cotton, being then Civil Engineer of the Division, reported fully on the condition of the Channel. Not only were the banks much worn away, so as to make it necessary to admit only a diminished supply of water; but under the lax system of management which had prevailed, individual Ryots had been permitted to go on making openings for themselves to take water, till there were no fewer than two thousand such openings, all of them much larger than necessary. As a consequence there was enormous waste of water, and the quantity admitted into the channel irrigated a far smaller extent than it was capable of watering. To remedy these palpable evils, Colonel Cotton proposed the entire renovation of the embankment, and the supersession of the numerous openings by a smaller number of masonry sluices, the whole to be placed under European management. He also proposed the prolongation of the channel for four miles, so as to irrigate a large extent of land, for which ample water would be secured by the remedial measures to be applied to the existing channel. He prepared and submitted Estimates for these works; and he pointed out also that the channel might be still prolonged for a considerable distance, and with great profit.

26. Many of Colonel Cotton's suggestions as to the management of the channel have been acted on; but the improvement of the channel itself has not yet been undertaken. The present Civil Engineer, Captain Francis has now submitted the present scheme in order to carry them into effect. The Estimate provides for strengthening and raising the embankment throughout. It is to be four yards wide at the top; and will communicate with the country on the right or upper side by means of existing bridges to be improved for the purpose, by which the use of carts will be practicable for transporting the produce of the fields below across the channel. Sluices to the number of 607 are proposed to be built in lieu of the two thousand cuts and rough stone openings above adverted to; alterations are to be

made to an existing aqueduct ; a wooden bridge is to be built ; rocks in the channel are to be removed ; and the channel to be extended as proposed by Colonel Cotton to the Noyel river. The proposed work may be briefly stated as follows.

	Rupees.
Embankment	25,726
Bridge work	6,454
Rebuilding an aqueduct	800
One large wooden bridge	2,000
Blasting	3,000
607 Sluices	20,598
Extending Channel to Noyel River	4,342
	62,920
Add contingencies	1,978
Total	64,898

27. It has been ascertained by actual measurement that between the head of the channel at Bowany and the aqueduct at Errode about 10 miles distant, a quantity of water is wasted sufficient to irrigate 10,000 cawnies of land, whereas the whole extent actually watered by the channel in its course of 52 miles is not above 5,000 cawnies. There is no doubt therefore that the measures now proposed for strengthening the embankment and substituting efficient sluices for the present wasteful openings, will greatly increase the irrigating power of the channel. The present proposed extension will command at least 300 cawnies of additional land, the revenue from which will be about 3,000 Rupees : and the economizing of water will also save the large remissions now annually necessary on some of the lower lands, thus there will be a total direct increase of revenue of about 5,000 or 6,000 Rupees.

28. And the present improvement will not exhaust the capabilities of the channel. Its terminus for the present is fixed at the Noyel ; but it may be eventually extended to Caroor, at the confluence of the Ambravaty and the Cauvery ; watering a large extent of land in its course. Or in Captain Francis' opinion a greater command of land for irrigation can more cheaply be obtained by excavating branch channels at certain points, whereby the expense of taking the channel across the Noyel river will be avoided. This part of Captain Francis' project remains however for future investigation.

No. 1. EMBANKING THE MAHANUDDEE IN THE GANJAM DISTRICT—RUPEES 64,840.

29. This is an Estimate for embanking both sides of the Mahanuddee river, from Kolladah above Russelcondah to Aska in the Ganjam district, a distance of 32½ miles, at a cost of Rupees 64,840 ; the object contemplated by this work is the protection of the cultivation from injury by inundation. This project was fully explained in the letter from this Government dated 12th February, 1856, No. 191, and it is therefore unnecessary to enter into more detail here. The Estimate provides earth work

for both banks......................	Rupees	51,986	8	0
Embanking 3 principal tributary streams, both banks......................	„	4,400	0	0
Superintendence at 10 per cent..........	„	5,638	0	0
Sundries at 5 per cent..................	„	2,815	8	0
	Total..	64,840	0	0

NAVIGATION WORKS.

30. The Projects which come under the head of navigation works are five in number as follow.

No. 55. Extending the East coast canal from Sadras to the Pondicherry frontier........	Rupees	3,75,000
No. 54. Improving the coast canal between Madras and Ameencovil......................	„	72,800
No. 14. Building 2 Locks and Calingulahs in the Aukeed canal and embanking the Weyairoo....	„	64,820
No. 10. Supplemental Estimate for increasing the width of the Palcole canal and building a lock at Nursapore............................	„	57,280
No. 50. Opening a canal from the Tuddry river to Coomptah..........................	„	36,021

No. 55. EXTENSION OF EAST COAST CANAL FROM THE PALAUR TO THE PONDICHERRY FRONTIER—RUPEES 3,75,000.

31. The Government of India and the Honorable Court have already on the recommendation of this Government sanctioned* the ex-

* Vide letter from Government of India, 21st March 1855, No. 94.

cavation of a canal from Madras southward to Sadras, a distance of forty miles, and the work is in course of execution. The present estimate is for a continuation of this canal thirty-four miles further to the south. It was framed and submitted by the Superintendent of Canals as a part of a larger scheme for the prolongation of the canal all the way to Cuddalore, being fifty-nine miles; but the further part of the project appearing to need more careful investigation, and arrangements having still to be made with the French authorities for the passage of the canal through the Pondicherry territory, the Chief Engineer laid before Government only that part of the project now under notice; in which the Governor in Council considers that he acted judiciously.

32. The canal proposed is to be cut to the depth of 4½ feet below meantide, and it is believed by the Superintendent that even at the worst season there will be water sufficient in it for passenger and light cargo boats. Lieutenant Chambers provided for no locks, preferring to add them hereafter if necessary, and for the present to leave the bed of the canal to be acted upon by the flux and reflux of the tide and to be scoured by the passsage of the land drainage to the sea. But the Chief Engineer has added two locks and falls; being of opinion that in a tract so destitute of large streams, it is doubtful whether Lieutenant Chambers' plan would be successful. Instead of admitting the intercepted minor drainage into the canal, he proposes, wherever practicable to lead it along the outside of the western bank, by small channels until it reaches a backwater or other main drainage, into which it will be made to enter at some distance from the navigation. Three bridges of masonry and three of timber are provided at points where the cross traffic is considered to require such accommodation. The section allowed for the cutting gives a bottom width of twenty yards being the same as that of the Madras and Sadras canal; and though this width appears to be more than is required for the probable traffic, the Chief Engineer considers it to be necessary in consequence of the sandy character of the soil. Some difficulty is anticipated in keeping the canal free from sand drifts; but it is purposed to plant the top of the banks with the palmyra as a protection and the slopes with shrubs and marine creepers, to diminish the effect both of the wind and the rain. The banks will also require puddling in some places where very sandy. It appears unnecessary to discuss in this place the advantages of the canal, because the Government of

India and the Honorable Court in sanctioning the first section have fully recognized the utility of the project generally. It may be briefly observed however that independently of Foreign trade, the city of Madras contains a population of above 7,00,000 persons, with a tendency to increase; and that a work which shall place this large population in closer and easier and cheaper communication with the country districts from which it must derive its supplies, and to which in return it must furnish many commodities not otherwise attainable, cannot be other than a vast benefit to both parties.

33. The items of the Estimate are as follow:

	Rupees.
Excavation	2,22,020
Trimming banks, leading drainage, puddling, &c.	59,440
6 Masonry and timber bridges	33,540
2 Locks and falls	40,000
Sundries	20,000
Total	3,75,000

No. 54. Improving the Coast Canal between Madras and Ammuncovil—Rupees 72,800.

34. This is a project for further improving the line of navigation from Madras to the Pulicat lake, recently extended thence to Doorgarauzepatam. The improvement is estimated to cost Rupees 72,800, and has been designed by Lieut. Chambers, the Superintendent, after the experience he has had of the state of the navigation between Madras and Ammuncovil, during both the monsoon and the dry season. In order to render the project more easy of apprehension, a sketch of the line is submitted properly marked to shew improvements already sanctioned and all but completed; those now being carried out under similar sanction; and that which is now proposed. The whole line from Madras to Ammuncovil is forty-four miles in length, and it may be divided into three sections. The first section is Cochrane's canal; the second is made up of the backwaters up to Pulicat, inclusive of the Catoopully cut; and the third consists of the lake navigation from Pulicat to Ammuncovil, the southern terminus of the recently excavated canal to Doorgarauzepatam. For the first two and the last three months of the year during ordinary seasons, the

whole of this line is navigable, and with the northerly wind which prevails at that time the traffic laden boats easily make their way down to Madras. At this period too, the level of the lake is raised by the rains from two to five feet above mean tide, and that of the backwaters is similarly increased, except at Ennore where the accumulated waters escape through the open bar. Towards the end of the second month of the year much of the water stored in the lake has run off, and from the third the process of evaporation begins, daily reducing the level of that which remains. As this evaporation increases, augmented by the force of the winds driving the water from one end to the other, the surface of the lake falls rapidly below mean tide: in 1855 indeed the surface of the lake fell to the level of mean tide so early as in the beginning of April. While this process of evaporation is taking place, a scanty supply of water is usually received from the Ennore estuary when the bar there may happen to be open; but the supply is insufficient in quantity to compensate for the loss. Should the showers in May and June fail, an entire stop is put to the navigation of the line as the lake will have then fallen several feet below the level of the sea. By an experiment made by gauging in October last, Lieut. Chambers discovered that though a considerable quantity of rain had fallen, the surface of the lake was still two feet and 9 inches below mean tide.

35. Such are the contingencies by which this navigation is influenced, and the present project is in furtherance of the treatment having its general amelioration in view. With respect to the first section, or Cochrane's canal, this improvement will have been effected on the early completion of the Shadiencooppem works, (marked No. 1 in the sketch.) The improvement of the second section is being carried out under an estimate of Rupees 13,202;* it consists in the cutting off of bends and the removal of shoals, caused by the deposit of silt brought down by the several streams debouching into the canal. It is however apprehended that the removal of these obstructions is likely to be only temporary, as the first monsoon will soon renew the deposits; and to permanently obviate this evil therefore, the Superintendent has proposed a more effectual improvement of this section, which will now be explained. In preference to periodically

* Part of the general estimate sanctioned by the Honorable Court for improving Cochrane's Canal and extending the navigation to Doorgarauzepatam—Vide letter from Government of India, dated 21st May 1852, No. 432.

removing the silt from the backwaters, the proposal is to cut an entirely new line of canal from Amalric's bend to Coromandel as shewn in brown and yellow in the sketch, partly making use of the present bed and partly cutting through the low ground skirting it; but in both cases effectually isolating, the new line, by throwing up the excavated earth along its western bank, so as to cut off from the canal the sediment and silt brought down by the rivers during the monsoon, and cause them to be deposited instead at the southern extremity of the lake, immediately to the west of the Pulicat Islands.

36. The estimate of Rupees 72,800 now recommended provides for this new line, and comprizes the following particulars.

		Rupees.
2nd section of the navigation.	Excavating new canal from Amalric's bend to Pulicat	18,563
	Deepening Catoopully canal	1,367
	Lock and Calingulah	25,000
3rdsection	Dredging in different localities	21,250
	Superintendence and sundries at 10 per cent	6,620
	Total	72,800

It will take in the Catoopully cut also, which requires both deepening and widening. The estimate further provides for dredging the backwaters here and there as marked in yellow dots in the sketch. Towing paths too will be provided, wherever practicable, it not being possible to make continuous paths owing to the numerous salt pans on either bank. To render the isolation of the new line more effectual, a lock and Calingulah will be constructed at its southern extremity. The site is shewn in the sketch, and will be found at the cut opposite Amalric's bend (marked No. II). The Calingulah is designed to retain the rain water, which as mentioned above begins to escape from the lake after the close of the monsoon, and thus instead of the surface being reduced to mean tide at the beginning of April, it is expected that it will probably not sink to that point until June. The Calingulah will also be useful in other ways; as by bringing a volume of water to bear on the Ennore bar, in case of its shewing symptoms of closing early in the season, and forcing the water of the Cortelliar to discharge into the sea through its natural estuary, instead of part-

ly flowing up the backwaters as it now does. This work will have a front and rear apron and will be sixty yards in length; and with a head of three feet water it will discharge nearly half a million of cubic yards per hour. Fitted with cast iron posts and wooden shutters and furnished with several powerful sluices in its body, it may be made to scour the channel above, by opening the shutters and sluices at neap tides. The dimensions of the lock will be 180 feet long and 20 broad. The third section of the navigation, viz., from Pulicat to Ammuncovil requires only dredging here and there, and a few buoys at the northern end of the lake to point out the two or three existing shoals, on which boats sometimes got aground.

No. 14. BUILDING TWO LOCKS AND CALINGULAHS IN THE AUKEED CANAL, AND EMBANKING THE WEYAIROO—RUPEES 64,820.

37. The works included in the next estimate were originally designed as part of a comprehensive plan contemplated by Captain Rundall, the Civil Engineer of the Godavery division, for conveying the water of the Godavery to the town of Masulipatam, and thus giving a direct navigation between Rajahmundry and that town and port. That project remains however still to be considered, as objections have been taken to it by Captain Orr, the Civil Engineer of the Kistnah division, for reasons which appear to the Chief Engineer to carry some weight, based on the supposition that the intended canal would interfere with the channels and drainage from the Kistnah annicut. Leaving that scheme then for future consideration, the present works are now proposed as offering advantages of their own independently of the larger design.

38. The estimates amounting in all to 64,820 Rupees provide for the construction of two locks and two Calingulahs in the Aukeed canal, and for embanking the Weyairoo. This canal, which was originally a natural drainage channel, conveys a large body of water from the Godavery at the Annicut towards the south east, and distributes it by various branch channels for irrigation and navigation, discharging its surplus into the sea by two great drains, one a new cut through the Oondee talook, and the other the Oopootaur, the natural continuation of the Weyairoo. The works to be constructed are in the lower portion of the Weyairoo. The upper lock and Calingulah at the village of Chinna Caupaveram are designed to regulate the flow of water into the Colair lake, and to keep the

navigation always open; while the lock and Calingulah at Yaloorpaud at the junction of the Aukeed, the prolongation of the Weyairoo, with the Oopootaur, will serve similar uses, the latter keeping the water in the Weyairoo at the proper level, and the former keeping the navigation always open between that stream and the sea by the Oopootaur. The embankment will confine the Weyairoo for a distance of 20 miles and prevent the destructive floods to which it is liable during the rains, when it still serves as the main drain of the country. The following are the particulars of the Estimate.

	Rupees.
Embanking the Weyairoo	27,480
Lock at Chinna Caupaveram	7,310
Calingulah at do.	1,920
Lock at Yaloorpaud	24,320
Calingulah at do.	3,790
Total..	64,820

No. 10.—INCREASING THE WIDTH OF THE PALCOLE CANAL, WITH LOCKS AT NURSAPORE AND MAUROOTAIR—Rs. 57,280.

39. The Budget of 1854-55 contained an estimate of Rupees 1,13,198 for enlarging and extending the Palcole canal on the right bank of the Godavery, and in the report* upon that work (vide paras 29 to 37 of the Budget Report of that year,) it was explained that this was a subsidiary work connected with the Godavery project, and that the objects contemplated by it were to provide for the better irrigation of the Delta talooks of the sub-division of the Collectorate, and likewise to fit the canal for navigation. The present estimate provides for the following works.

	Rupees.
Giving an increased section of 9 square yards to the channel	19,800
Excavating the canal from the lock at Nursapore into the river Godavery	5,000
Constructing an extra lock and Calingulah at Maurootair	4,310

* To Government of India, 11th October 1854, No. 435, p. 29 to 37.
• From do. 26th January 1855, No. 74, p. 14 to 18.

Enlarging the Nursapore lock, less the amount already sanctioned........................	13,099
Three bridges, superintendence and sundries.......	5,071
And compensation for lands to be taken up........	10,000
Total Rupees	57,280

40. In explanation of the necessity for these further works, the Chief Engineer states that before the work sanctioned in the Budget of 1854-55 was executed, it was thought advisable to give the canal the advantage which had been given to all the other main lines, viz., the power of reducing the surface to a dead level, in order that in case of a scarcity of water in the Godavery during the summer months, the canal might still be navigable. To do this an additional lock was required and as the reduced fall would lessen the quantity of water conveyed by the canal, an increase in its capacity was also necessary to enable it to supply the same quantity of water as before for the irrigation of the land dependent on it.

41. This canal is the great approach to Nursapore; a town which though of late years little frequented by Coasting Vessels, has always been an important market, and which being the Sub-Collector's Head Quarters is the capital of the province south of the Godavery. It would have been desirable even on these accounts alone that the canal navigation should be secured throughout the year; but of late a great additional value has been given to the town and consequently to the canal, by the discovery of a good passage to the sea through the shoals at the mouth of the river. Steps are being taken to mark the passage by Beacons; and there seems no doubt that the port will rapidly increase in importance. The Palcolo canal will by its increased water way, have a surface width of twenty-five yards, which will admit of steamers plying on it at a moderately high velocity, and it is stated that measures are being taken by a private company to have a steamer ready by the time the canal is open.

42. In the original estimate the branch canal to the Godavery was not entered. This want is now supplied, and the lock is re-estimated on the dimensions given to the largest class of works of that description, viz. 150 feet by 20, which if necessary any where are especially so here. By this lock vessels employed on the river will pass into the canal; and as the junction canal from river to river

passing across the whole delta will be connected by a series of locks of which this is one, it is desirable that it should be of the same dimensions as the others.

43. The Chief Engineer represents that there is so-urgent a call for this important line of channel to be placed in a thoroughly efficient state, that he considers the estimate now submitted as one of the most important in the Budget. The canal passes through a country very thickly peopled and very fertile when watered ; and till it is complete, but little use can be made of it for irrigation, while its navigation is entirely stopped by the want of the lock. Under these circumstances the Government strongly recommend the project for sanction.

No. 50. Cutting a Canal from the Tuddry river to Coomptah—Rupees 36,021.

44. This is an Estimate for opening a canal from the Tuddry river to Coomptah at a cost of Rupees 36,012. Coomptah is the port in north Canara at which the greater part of the Cotton of Dharwar and Bellary finds shipment. During the time when the Cotton is arriving, the roads are so thronged that relief is urgently called for ; and this will be given by the proposed canal, which will render Coomptah directly accessible to the boats which already ply in large numbers on the Tuddry river and backwater. It will greatly facilitate the traffic in another manner, viz., by substituting water carriage for land carriage from the foot of the Devamunny Ghât, a part of the route where it is peculiarly difficult to procure fresh water and forage for cattle. The Civil Engineer contemplates a further extension of the project to be entered in the Budget of the succeeding year, which will extend this benefit to the trade from Mysore by the new Guerseppah Ghât, by connecting the Honore backwater and Coomptah creek.

45. This project has been under the consideration of the local Officers of the district for some time, and Mr. Maltby the late Collector who formerly was inclined to advocate a bridge of boats over the Tuddry river in preference to a canal, chiefly as it seems from difficulties anticipated in the way of the latter work, appears to have altered his views and now fully concurs with the Engineers in the advisability of the canal, considering a bridge however to be also

necessary. He* says "I consider the project of a canal from Tuddry to Coomptah to be one of great importance, and that it is likely to be fully worth the sum required for its execution. In connection with a canal from Coomptah to the Honore backwater it will form a most valuable line of communication, by which the produce brought down by the Guerseppah Ghât, and the salt produced at Coomptah and on the Tuddry, can be interchanged, and it will also, as it were, place the town of Coomptah on the Tuddry estuary and render that fine back-water available to the merchants whose property is so largely invested in that town." For these and other reasons Mr. Maltby says he has no hesitation in expressing his opinion that the line of canal now proposed is a project of the greatest importance and one which would justify a larger outlay than the sum estimated.

46. The estimate provides for the value of the land to be taken up for the canal, as well as for a bridge to convey the Coomptah and Gokurn road across it, as shewn below.

	Rupees.
Excavation	30,635
Superintendence	3,062
Bridge on the Gokurn road	1,221
Valuation of land to be taken up for the canal	1,102
Total	36,020

The Civil Engineer has not estimated for locks or sluices as these appeared to him unnecessary, and he is not apprehensive of any material silting up of the canal, as the creek which connects portions of it has always plenty of water. With these remarks the Government recommend the project for sanction; the work appears to be one of great importance to a large trade, and at the same time to be one of no difficulty whatever. The Collector and the Chief Engineer will be called on for their opinion as to the expediency of levying a light toll on the canal, with the view of making the prosperous trade of Coomptah pay for this additional accommodation provided for it.

TRUNK ROADS.

47. For Trunk Roads there are fourteen estimates, viz.

One for No. 1 Trunk Road, viz., No. 29.

Six for No. 6 do. Nos. 2, 3, 4, 5, 20 and 28.

* Letter to the Chief Engineer, 9th January 1856.

One for No.	7 Trunk Road, viz.,		No. 21.
Three for No.	8	do.	Nos. 35, 36, and 39.
Two for No.	9	do.	Nos. 37, and 38.
One for No.	11	do.	No. 23.

The lines here designated "Trunk Roads" are those which were under the late Road Department. The classification is not a correct one, because the roads thus denominated do not by any means comprise all the main lines of the country; it is however retained for the present until a better classification can be made. Heretofore, as the Government of India are aware, the expenditure on the "Trunk Roads" was met by disbursements authorized by the local Government from the sum of four lacks of Rupees yearly which had been specially set apart by the Honorable the Court of Directors for the construction and improvement of main roads. In consequence however of the orders of the Government of India of the 13th April 1855, No. 190, and in harmony with the new constitution of the Public Works Department, estimates for those works also have now been brought under the General rules of the Public Works Department and consequently they, equally with other projects, find a place in the Annual Budget requiring the sanction of the Government of India. The importance of the main lines of the country having been fully recognized, the propriety of their improvement, or the necessity for authorizing works remaining still to be executed in completion of certain of them does not seem now to need argument or proof. The Engineer Officers have not therefore urged any special grounds for undertaking the works embraced by the estimates here referred to, nor do the Government deem it necessary to state any particular reasons in support of their recommendations. The admitted importance of the lines, and the necessity of forming continuous roads upon them as speedily as possible, form the general grounds on which these estimates are now put forward. Each project will however be separately noticed, with such observations and explanations as each case may seem to call for.

No. 29. ADDITIONAL METALLING TO PART OF TRUNK ROAD NO. 1 RUPEES *55,690.*

48. In reporting upon the condition of the several Trunk lines of the Presidency in his general report of 1854-55, the Superintendent brought to notice the extent to which the metalling of Trunk road

No. 1 had suffered by the very heavy traffic using it. He had previously adverted to the necessity of giving an additional breadth of surface to this and other lines of heavy traffic, as it was found impossible to keep in good repair roads of only six yards width under constant and heavy traffic, but he had been deterred from recommending the measure in the case of Trunk line No. 1, because the Railway when completed would relieve the road to a great extent. In his report abovementioned however, he stated that further experience had shewn him the absolute impossibility of keeping the surface of a road good, or even in proper section, with the present width of metalling (six yards) when the traffic is heavy; he however made no specific recommendation. The Government suggested the propriety of restoring Trunk road No. 1 to its original width of eight yards, if considered inexpedient to increase it to ten; the increased width being given only in the heaviest worked part of the line.

49. The Superintendent accordingly submitted the accompanying estimate of Rs. 55,690 for giving the increased width of metalling suggested to that portion of the road lying between the Presidency limits and the Cantonment of Arcot, a distance of 67½ miles. This line forms the high western road of this Presidency, and is one of great importance. It extends from Madras to the Mysore frontier beyond Oossoor, 189½ miles, and leads to the great Military cantonment of Bangalore, connecting the Presidency and carrying a very heavy traffic both in goods and passengers. The original width was eight yards, and it was reduced to six against the opinion of the late Superintendent of roads. This Government are of opinion that the present Superintendent has shewn good reason for restoring the former width and for the opinion that this addition will in fact be a measure of economy. The Railway expected shortly to be opened will relieve this part of the line of most of the distant traffic; but the local traffic on it must always be heavy, and the Governor in Council considers it highly desirable that the increased width should be given.

50. The six estimates noted below amounting in the aggregate to Rupees 3,26,723 are for parts of Trunk road No. 6, which leads from Madras to the Bengal frontier a distance of 686 miles.

	Rupees.
No. 28. Chingleput.—Puningardee backwater..........	33,023
No. 20. Nellore.—Masonry works between Covoor and the Moodegunda river..............................	84,580

No. 4. Vizagapatam.—Constructing road from Chicacole to Chittavalsah..........................	93,460
No. 5. Masonry works on road from Chittavalsah to Soobarum.....................................	31,910
No. 2. Ganjam.—Repairing and improving road from Dendagedda near Itchapore to Sunthoshapooram....	46,550
No. 3. do. do.—Between Sunthoshapooram and Chicacole..	37,200
Total..	3,26,723

51. The northern Trunk road was one of those placed under the charge of the late Road department, at its first formation in the beginning of 1846; but that department was never in a condition to bestow on it any large share of attention, being almost wholly taken up with other lines. Parts of the road have been made, especially the greater part of the distance from Madras to three miles beyond Nellore, 113 miles, and that from Itchapore to the frontier of Cuttack 45½ miles. On parts the earth work has been completed, but the masonry works remain to be executed, viz. from the 113th mile to the Moodegunda river north of Ongole, a distance of 82 miles between Soobarum and Chittavalsah 22 miles, and between Chicacole and Sunthoshapooram 40 miles. This Government consider it desirable that measures should be taken for the gradual completion of the line; and the six estimates under notice are submitted with that view. They will now be noticed in the order of the portions of road referred to, going from Madras.

No. 28. RAISED CAUSEWAY AND BRIDGES OVER THE PUNINGARDEE BACKWATER. RUPEES 33,023.

52. In the early part of 1854, this Government sanctioned an Estimate of Rupees 68,813 out of the four lack fund for the completion of that portion of the northern Trunk road which lies between Goomidipoondy and Covoor, being 85 miles, with the exception of about a mile and a half of the Puningardee backwater. Goomidipoondy is about 27 miles from Madras, and Covoor is on the north bank of the Pennaur about 112 miles. The Puningardee backwater spreads for a distance of nearly three miles over a false and treacherous soil, occurring between the 32nd and 25th miles from Madras, and it has always offered a serious obstruction to the traffic, being often impassable for

carts, and even difficult to be crossed by foot passengers. Under the Estimate of 68,813 Rupees abovementioned, advantage was taken of some high land east of the old track, and embankments have been thrown up across the hollows, so that an excellent line of road has been formed over the backwater with the exception of the portion now to be provided for, the total length of which according to the accompanying sketch measures 1 mile, 3 furlongs, and 122 yards. A careful survey was made of the locality by Lieutenant Marshall, the Officer in charge, and the ground in the vicinity of the backwater was twice examined by Captain Johnston then Superintendent of roads, who reported in submitting the Estimate, that he was satisfied the project recommended was calculated to overcome the remaining difficulties.

53. The estimate for this purpose amounts to Rupees 33,023 ; it provides for a raised causeway and two bridges, each of five arches as well as for a small one arch bridge and two tunnels.

The following are the particulars	Rupees.		
Road work and sundries................	11,133	0	0
A bridge of five arches of 36 feet span....	9,231	8	0
A second bridge of the same dimensions...	9,231	8	0
A bridge of 1 arch of 30 feet span........	2,783	0	0
2 tunnels of 2 vents of 4½ feet span......	644	0	0
Total..	33,023	0	0

The two large bridges are to be thrown over the two passages left for the large amount of drainage, which during the rains finds exit by this passage ; and much of the cost of the work arises from the necessity of constructing embankments to form the approaches to these bridges with rough stone revétments on both sides, to protect them from the action of the water. The completion of the works now proposed will remove the only serious obstruction on the whole line from the Presidency to Nellore.

No 20. Masonry works between Covoor and the Moodegunda river—Rupees 84,580.

54. This estimate is for completing with masonry works the portion of the road between Covoor in the 113th mile and the Moodegunda river of which as noticed in para. 51, the earth work has already been

executed. It provides for two bridges, of nineteen and thirteen arches respectively over two considerable rivers the Pallairoo and Manairoo, besides several smaller ones over minor streams and several Tunnels; the whole as shewn below.

		Rupees.
1	Bridge of 19 arches of 30 feet for the Pallairoo river.	23,520
1	do. 13 „ 36 feet „ Manairoo „	21,280
1	do. 6 „ 30 feet „ Moosediroo „	8,170
12	Bridges of smaller dimensions over channels and jungle streams..........................	19,070
65	Tunnels varying in size from 1 vent of 3 feet span to 2 of 12 feet..........................	12,540
	Total..	84,580

55. Between the Moodegunda river and Toonee on the northern boundary of the Rajahmundry district, a distance of 243 miles, the road still continues unformed. In the general report of the Road department for 1854-55, the Superintendent gave the Government to understand that the country would be examined and preliminary surveys made, but this duty has not been performed and as yet no work has been proposed for this distance. Between Toonee and Soobarum in the Vizagapatam district about 53½ miles, the road has been completed.

No. 5. Masonry works between Soobarum and Chittavalsah—Rupees 31,910.

56. This estimate Rupees 31,910 is for sundary masonry works between Soobarum and Chittavalsah a distance of 22 miles, of which as already mentioned the earth work has been completed. The estimate provides for ten bridges over minor streams, fifty-three tunnels and thirty-five road dams, as shewn below.

	Rupees.
10. Bridges..............................	21,083
53. Tunnels..............................	7,915
35. Road dams..............................	2,520
Stone Pillars to bridges and mile stones, &c.,....	392
Total..	31,910

No. 4. Formation of the road between Chittavalsah and Chicacole—Rupees 93,460.

57. This estimate is for constructing a further portion of the same line between Chittavalsah in the Vizagapatam and Chicacole at the southern extremity of the Ganjam district, a distance of 41 miles at a cost of Rupees 93,460. The present road on this part of the line, which however has never been made and is no more than a mere track, passes through villages close upon the coast and this is considered objectionable both by the Civil Engineer of the Division and the Chief Engineer, on account of the nature of the soil and of the surface of the country. The line proposed to be adopted in lieu takes a course further inland, so avoiding the swamps on the coast and runs for almost the whole way over high and firm soil with material near and readily procurable, and avoids all the inconveniences and difficulties of the minor drainage. The Estimate consists of the items noted below.

	Rupees.
Earth work, gravelling, metalling, clearing jungle, compensation for private land, and Sundries......	33,990
14 Bridges....................................	22,237
149 Tunnels....................................	35,693
16 Road dams....................................	1,536
Total..	93,456

The total amount is equal to a little more than 2,300 Rupees a mile; being a very small sum for the entire construction of a first class road, with a metalled surface six yards in width. Two rivers of large size are for the present left unbridged.

58. The Civil Engineer in forwarding the estimate observes that the advantages to be realized by the construction of this road, are the great convenience to the numerous travellers who pass to and from the Bengal Territory and the connecting Vizagapatam the Head Quarters of the Division with Chicacole, and eventually as the construction of the other portions are sanctioned, with Berhampore, Ganjam, Aska, and Russelcondah. The country through which the road passes is represented to be remarkably rich in oil seeds and other dry grains, of which a considerable quantity is exported at the ports of Bimlipatam and Vizagapatam.

No. 3. COMPLETING THE ROAD BETWEEN CHICACOLE AND SUNTHOSHAPOORAM—RUPEES 37,200.

59. This estimate is for the continuation of the road from Chicacole to Sunthoshapooram a distance of 39½ miles. On the 10th April 1854 this Government sanctioned a disbursement of Rupees 75,263 out of the four lack fund for earth work for 137 miles of road from Chittavalsah to Itchapore, with the view of giving employment to destitute poor during the scarcity of that year. But from various causes only a limited amount of work was done on the road ; and in June 1855, as the sanction had been given without any survey or estimate, but merely at a general rate of Rupees 500 a mile, and as the exigency under which it was given had passed away, the Government cancelled the grant, directing that only such works undertaken under that authority as could not be stopped without risk or loss, should be proceeded with at once to completion, or to a point at which they might be stopped without risk or loss. The Superintendent was also directed to submit an estimate for completing the road between Chicacole and Sunthoshapooram, omitting or deducting works already executed, and the present estimate was submitted in consequence. It provides for the completion of the road with metalling and Tunnels and road dams, but without bridges for the rivers and larger Hill streams ; for which estimates will be prepared for entry in a future Budget. The following are the particulars.

			Rupees.
Earth work, metalling and gravelling............			18,294
19	Tunnels each of 1 vent of 9 feet span		6,156
41	Do.	6 feet do.........	9,430
22	Do.	3 feet do.........	3,058
8	Road dams,..............................		512
			37,450
Deduct advance to contractors for materials under the former grant,..........................			250
		Total..	37,200

No. 2. CONSTRUCTION BETWEEN SUNTHOSHAPOORAM AND DENDAGUDDA. RUPEES 46,550.

60. The last estimate for this line is for constructing 34½ miles of road between Sunthoshapooram and Dendagudda near Itchapore, from

which point to the frontier of Cuttack the road is nearly completed with masonry works. The estimate amounts to Rupees 46,550 and provides for earth work, metalling six yards in width, and such masonry works as are necessary for crossing swampy and irrigated lands. It does not provide for bridging any of the considerable streams, which remain to be provided for hereafter.

TRUNK ROAD NO. 7.

No. 21. MASONRY WORKS IN COMPLETION OF TRUNK ROAD No. 7—RUPEES 89,434.

61. Trunk Road, No. 7, is ninety-one miles in length. It branches from the northern Trunk line at Ongole in the Nellore Collectorate, and stretches in a northwesterly direction to Pondigul on the south bank of the Kistnah, which is at this point the boundary between the Company's territories and the Nizam's dominions. From the opposite bank of the river to Hyderabad the road has been made and is maintained in good order by the Nizam's Government. On the 5th of June 1854, an estimate of Rupees 1,34,021 was sanctioned out of the four-lack fund by this Government, for the earth work, road dams, and barrel drains of this line ; and the works under that sanction are in an advanced state. The present estimate of Rupees 89,434 provides for masonry works in completion of this line, with the exception of additional metalling, which must hereafter be regulated according to the extent of the traffic using the road. There seems to be but one considerable stream intersecting this line, viz. the Goondlacumma river, for which a bridge of nineteen arches is provided.

62. The several works, compounding the fractions, may be briefly enumerated as follows.

	Rupees.
One bridge of 19 arches of 45 feet span across the Goondlacumma river	36,280
One do. of 9 arches of 30 feet span for the Erotum vaugoo	8,410
One do. of 7 arches of 36 feet span for the Yerra vaugo	9,920
One do. of 7 arches of 30 feet span for the Bovanassy river	6,590
One do. of 5 arches of 36 feet span for the Nagalairoo river	8,300

Two bridges of 3 arches of 24 feet span for Pootavany Paulem vaugo and Yeddamongala vaugoo..	Rupees. 4,940
Two do. of 3 arches of 18 feet span for a channel and Corittar Pallavaugoo..................	3,460
One do. of 1 arch of 36 feet span for the Nellore vaugo..................................	2,740
Two do. of 1 arch of 24 feet span for Sembadoo tank supplying channel and Booga vunka....	1,800
Twenty-five tunnels, varying in size from one vent of 3 feet to three vents of 9 feet..................	6,994
Total..	89,434

63. This road, being the direct communication between Madras and the Capital of the Nizam's dominions, is a line of great importance both for military purposes and as respects the general traffic of the country ; and the Government consider it of great consequence to complete it without delay. They beg accordingly to recommend the amount of the estimate for the sanction of the Government of India.

TRUNK ROAD No. 8.

No. 35. Bridge over the Pennaur on Trunk Road No. 8.— Rupees 1,06,333.

64. Project No. 35 is for erecting a bridge of 45 arches of 15 yards span over the Pennaur river at the point where it intersects Trunk road No. 8. This road extends from Madras southwards to Trichinopoly a distance of 198 miles ; and the Pennaur is one of the large unbridged rivers by which it is crossed. The site of the proposed bridge is near Parangoor a village in the South Arcot Collectorate. From the section accompanying the plan and estimate for this work, it will be observed that this river like several others occurring on this line flows over a bed of great breadth ; though at the same time its high level the late Superintendent of roads reports, will not admit of the stream being much contracted without extensive embankments to secure the country from floods. The sectional area of this river when in high flood is about 4,000 square yards, and the waterway provided for in the bridge will allow of the passage of this volume and will yet leave three feet clear below the soffits of the arches. When the bridge is constructed and the water fairly conducted under

its arches it is expected that the bed of the river will gradually become more defined than it is at present; and to aid in effecting this object, it is proposed to revet the banks with stone on the up stream side. It will be observed also in the section that the embankments forming the approaches to the bridge are colored yellow; this is to shew to what extent the Engineer authorities proposed to contract the bed. The span of the arches is of limited width, only 45 feet, on account of the low elevation of the banks, and to avoid an inconvenient rise in the roadway. The amount of the estimate is Rupees 1,06,333.

No. 36. Bridge over the Vellaur on Trunk Road No. 8—Rupees 37,263.

65. This estimate is for bridging the Vellaur river also on Trunk road No. 8. It provides for the construction of a bridge of thirteen arches of 45 feet span. The site of the bridge is near Tooloodoor in the South Arcot Collectorate, and the amount of the estimate is Rupees 37,263. When this work and that reported on in the preceding para obtain sanction, bridges will have been provided for all the streams intersecting Trunk road No. 8 with the exception of the Mullataur and the Paulaur.

No. 39. Additional Metalling between Oolundoorpett and Samiaveram—Rupees 37,313.

66. This item of Rupees 37,313 refers to a portion of trunk Road, No. 8 leading as already noticed from Madras to Trichinopoly, viz., to that part between Oolundoorpett and Samiaveram a distance of 65 miles; the construction of which was authorized by this Government on the 13th April and 3rd July 1852, out of the four-lack fund upon estimates amounting to Rupees 1,04,930. That amount however provided for metalling only the worst parts of the road, leaving the metalling of the other parts to be attended to when the line should have been established throughout. This has now been done and the traffic passes on the line from end to end, but the road is stated to be in a very bad state in wet weather. It is necessary therefore that the metalling should be completed; and the present estimate amounting with superintendence to Rupees 37,313 has accordingly been prepared, and is submitted for sanction.

29 Miles from Oolundoorpett to the Vellaur river...	47,667
36 miles from the river to Samiaveram......	57,263
	1,04,930

TRUNK ROAD No. 9.

No. 37. Bridge over the Pennaur on Trunk Road No. 9.—Rupees 46,901.

No. 38 Bridge over the Guddilum on Trunk Road No. 9.—Rupees 25,869.

67. Projects Nos. 37 and 38 are for bridging the Pennaur and the Guddilum at the points where these rivers intersect Trunk road No. 9. This short line of 75¼ miles in extent, branches from No. 8 at a village called Pauprumpett, and proceeding in a southerly direction finds a terminus at the large town of Combaconum in the district of Tanjore. The bridge over the Guddilum is one of thirteen arches of 45 feet span; and is estimated to cost Rupees 25,869; the site of the work is near Punrooty in the South Arcot district. That over the Pennaur will have 33 arches of 30 feet span, the estimated expenditure amounts to Rupees 46,901. In his report for 1854-55, the late Superintendent reported that with, the exception of these rivers, there only remained a few tunnels to be built to complete the line. The metalling however has still to be added; an estimate for this has been laid before Government but has been postponed.

TRUNK ROAD No. 11.

No. 23. Masonry works on Trunk Road No. 11.—Rupees 1,28,753.

68. This set of estimates amounting in the aggregate to Rupees 1,28,753 provides exclusively for masonry works for the completion of Trunk road No. 11, extending from Chittoor in North Arcot to Cuddapah a distance of 99 miles. All the earth work and the small masonry works on this line have been already provided for, and the work is in course of execution; and it now remains only to complete the communication by bridging the various rivers and streams crossing it; the length over which these works are to be executed may be divided into three portions for the purpose of ready apprehension, and the works themselves may be enumerated as follows:—

1st Portion, between Chittoor and Poothulputt, 10¾ miles.

One bridge of 10 arches of 30 feet span across the Chittoor river..............................	12,481	9	0
One bridge of 20 arches of 30 feet span over the Culvagoonta river..................................	21,386	15	0
	33,868	8	0

2ND PORTION, BETWEEN CULLOOR AND CULCUDDA, 24½ MILES.

One bridge of 9 arches of 36 feet span over the Bahoonuddee river	13,634	4	0
One do. of 7 arches of 30 feet span for the Culcudda river	8,000	11	0
One do. of 5 arches of 36 feet span for the Punchanuddee river	10,278	13	0
One do. of 2 arches of 24 feet span for the Calingulah of the Rungaputtyraujcheroovoo	2,080	1	0
One do. of 2 arches of 15 feet span over the Yerrellacoontah river	1,422	11	0
Fourteen Tunnels from 1 vent of 3 feet span to 3 vents of 6 feet span	3,725	11	0
	39,142	3	0

3RD PORTION, BETWEEN CULCUDDA AND GOOLCHERROO, 31 MILES.

One bridge of 11 arches of 36 feet span for the Mundaveer river	13,653	0	0
One do. of 9 arches of 18 feet span for the Erragoonta Vunkah	4,837	1	0
One do. of 6 arches of 15 feet span for the Chittoor river	3,025	0	0
One do of 5 arches of 30 feet span for the Bundapulla Vunkah	5,558	13	0
One do. of 4 arches of 36 feet span for the Sootamulla Vunkah	5,974	13	0
One do. of 4 arches of 36 feet span for the Ethlachervoo Vunkah	6,905	1	0
One do. of 3 arches of 15 feet span for the surplus channel of the Daraputla Tank	1,908	7	0
One do. of 2 arches of 24 feet span for the Mungabunda Vunkah	1,986	12	0
One do. of 1 arch of 36 feet span for the Chittoor Pedda Chervoo Vunkah	2,637	6	0
One bridge of 1 arch of 30 feet span for the Cung Vunkah	1,699	15	0
Thirty Tunnels as in previous portion	7,555	8	0
	55,741	12	0
Total for sixteen bridges and forty four tunnels. .Rs.	1,28,752	7	0

69. Between the first and second portions, a distance of nineteen and a half miles intervenes, viz: from Poothulputt to Culloor, on which all the works inclusive of the Damulcherroo Ghât have been already sanctioned; and from Goolcherroo the commencement of the third portion to Cuddapah, a distance of thirteen and a half miles including the Goolcherroo Ghât, the road has been completed.

DISTRICT ROADS.

70. The term District roads is at present applied to all roads except the few which were placed under the late Road department under the designation of Trunk roads. The existing classification of roads under this Presidency is not appropriate, as already mentioned, and some of the so called District roads are of more importance, and likely when made to carry a heavier traffic than some of the "Trunk roads." They are generally in a very backward state, many of them being still wholly unmade and unbridged. During the last few years, however, some progress has been made in improving the condition of some of the most important, and this Government desire to keep that object steadily in mind. The projects included in the present statement for the construction or improvement of District roads are eighteen in number as follow:—

Nos.		Rupees.
6.	Road from Vizagapatam to Polapurty	45,750
15.	Road between Masulipatam and Ibrahampatam	43,250
19.	Bridge over the Boogairoo	38,558
26.	First class road between Ghooty and Rayelcherroo	31,100
24.	Completing road from Cuddapah to Tolapodatoor	78,710
25.	Bridging the Bellary and Humpsagur road	59,250
30.	Bridge over the Cooum at Dacumbode	26,860
31.	Road from Chingleput to Taiteray	41,130
33.	Road from Trivatoor to the Palaur Annicut	38,600
34.	Bridge across the Palaur at the Annicut	94,400
40.	Bridge over the Vellaur on the southern Coast road	35,020
41.	Road from Trichinopoly to Salem boundary	50,000
42.	Road from Trichinopoly viâ Laulgoody and Woodiarpolliem to join Trunk road No. 9.	43,600
43.	Bridge over the Vigay river	42,200
44.	Pulkanooth and Nellacotah road	25,560

Nos.
46. Road from Palamcottah to Tuticorin..........67,361
48. Bridge over the Ambravaty..................63,830
49. Bridging the Guersappah Ghât road..........25,994

No. 6. ROAD FROM VIZAGAPATAM, VIA PUNCHADURLA AND DIMILY TO POLAPURTY ON TRUNK ROAD, No. 6—RUPEES 45,750.

71. This estimate of Rupees 45,750 provides for the continuation and completion of a road already partially executed from the port of Vizagapatam viâ Punchadurla and Dimily to the village of Polapurty, situated on the northern Trunk road, a distance of 38 miles. It was undertaken in 1854 in lieu of one sanctioned for a different part of the District, for the employment of the people at the time of the dearth. The change was made at the instance of Mr. Fane, the late Principal Assistant to the Collector, who was intimately acquainted with the wants of the country. His reasons for the change were that the sanctioned line ran through a tract of country covered with jungle, and so unproductive as to be just able to support a few wretched villages, whereas the one now under notice traverses chiefly high ground, which renders the cost of making a road less expensive, while the tract of country to be opened up is rich with paddy cultivation, and will yield large supplies of grain for the market of Vizagapatam. The produce of the rich mootahs of Kondakirlah and Dimily and of the inferior one of Madootooroo, are now conveyed on bullocks to Vizagapatam; whereas the road proposed would make it practicable to use carts, at a saving of 2½ Rupees per garce. It may be added that Vizagapatam draws its daily supplies of straw, grass, firewood and other necessaries from the neighbourhood of the same part of the country; thus rendering a ready access the more desirable.

72. The portion of the road already completed and bridged measures about eight miles, the cost having amounted to Rupees 12,160. The distance to the point of junction with the Trunk road is about thirty miles more, so that the proposed expense will be about 1,500 Rupees per mile; the road chiefly runs over high ground where metalling and gravel are easily procurable, but parts of it lie across paddy and swamp land, and several jungle streams have to be bridged, as also small tunnels to be constructed over irrigation channels. The width of road proposed is eight yards, metalling six yards by one twelfth in thickness and gravelling six yards by one ninth in thick-

ness. The road is considered one of great utility; it passes through the heart of the only Government talooks of the district, which are rich and highly cultivated; and it will form the most direct approach to the town and port of Vizagapatam from the south. The items comprized by the estimate are the following.

	Rupees.
Road works, superintendence, &c.,	13,126
Compensation for private land taken up	520
11 Bridges	24,466
30 Tunnels	6,168
47 Road dams	1,470
Total...	45,750

No. 15. ROAD BETWEEN MASULIPATAM AND IBRAHAMPATAM— RUPEES 43,250.

73. The line of road, for the reformation of a portion of which this estimate provides, has already formed the subject of a correspondence with the Government of India. Sir Henry Montgomery's letter dated 26th September 1853 No. 367, laid before them an estimate amounting to Rupees 1,73,369, for a complete metalled road from Masulipatam to the eastern frontier of the Nizam's dominions viâ Ibrahampatam, a total distance of 115¾ miles, that highly important military and political line being in an extreme state of disrepair. It was at the same time intimated that the Board of Revenue in their capacity of Board of Public Works, had suggested that the portion of the line between the Nizam's frontier and Ibrahampatam alone should be undertaken at an expenditure of Rupees 55,832, and that for the distance between the latter point and Masulipatam water carriage in connection with the Kistnah annicut should be made available; and that they also proposed that in lieu of that portion of the road for which they then submitted an estimate, a low speed Railway might be substituted. Mr. Allen's letter of the 23rd June 1854 No. 70, furnished copy of a despatch from the Honorable the Court of Directors in reply to the above application. In that despatch the Honorable Court recognizing the importance of this line and the necessity of maintaining it in an efficient state, sanctioned the immediate commencement of the portion recommended by the Board; and expressing the opinion that advantage should be taken of the canal

from Ibrahampatam to Masulipatam, directed that for the present at least no considerable expense should be incurred for a road on that part of the line. They at the same time empowered the Government of India to sanction a cheap Railway from Ibrahampatam to the frontier, if on further consideration it seemed expedient.

74. The Budget of 1855-56 included an estimate for a canal from the Weyairoo to Masulipatam, which when completed will give a water communication between the latter town and Ibrahampatam ; and that project the Government of India have recommended for the sanction of the Home Authorities. As respects the proposed Railway between Ibrahampatam and Hyderabad frontier, 64 miles in length, this Government observed on a recent occasion* that this short line of rail would end at a place of no importance whatever, viz, at the small village of Madaveram on the frontier ; at which place all the transfers from the Railway to ordinary conveyance and the contrary would have to be effected. Thus this line appeared to them to be without that very important element of success a good terminal point ; and further there seemed no likelihood of its being prolonged to Hyderabad. Considering this circumstance therefore, and the time that would necessarily elapse at all events before the Railway could be completed or even begun, while every thing was ready for the immediate commencement of the road, this Government set aside the Railway project for the present and directed that immediate measures should be taken for the construction of the road. With regard to the remaining and most important part of the line, that between Ibrahampatam and Masulipatam, the Government fully agreed with the Collector in the opinion expressed by him in his report on the roads of his district for 1854, that the proposed canal would not wholly supply the place of a road ; and hence, with reference to the instructions of the Honorable Court as to the expenditure on this part of the line, the Civil Engineer was directed to reduce the former estimate, by omitting metalling where not absolutely necessary and by other practicable means, to an estimate for a second class road, in view to its immediate execution.

75. In pursuance of these orders, the present estimate of 43,250

* E. M. C. 17th July 1855, No. 342 p. 7.

Rupees has now been submitted for the reformation of that portion of the great Hyderabad road lying between Masulipatam and Ibrahampatam; and it is explained that from the nature of the soil, it is impossible to reduce the estimate to a lower amount. The ground which the line traverses is said to be alluvial and unsuited for a road way, unless either metalled, or covered with the best substitute procurable. On grounds of economy compatible however with those of durability and usefulness, the estimate now recommended provides for no more earthwork than is absolutely necessary for filling breaches and other inequalities; but it allows for a coating of gravel, potter's earth or sand throughout, whichever material may be most readily procured. The Civil Engineer reports that between Beizwarah, the site of the Kistnah annicut and Masulipatam no gravel is to be found; but that from the neighbourhood of decayed and abandoned villages near the line, a firm soil mixed with broken pottery is procurable, which will make a very good substitute for gravel; and where no earth even is to be had within a reasonable distance, sand mixed with alluvial earth will be employed and will be prevented from being blown away by a ridge of earth on each side. The estimate allows also for nineteen masonry drains and one tunnel at spots where they are considered to be indispensable, and for one small bridge across an irrigating channel near Weyoor. The whole distance is somewhat more than 49 miles being at the rate only of eight hundred Rupees a mile which cannot be reduced with any prospect of a tolerable road being made. It is unnecessary here to recur to the grounds which render it essential to maintain the line from Masulipatam to Hyderabad in an efficient state, as they have been already fully recognized by the Government of India and also by the Honorable the Court of Directors as may be seen by a reference to the Dispatch already adverted to.

No. 19. Bridge over the Boogairoo, Nellore District— Rupees 38,558.

76. No. 19 is an estimate of Rupees 38,558 for a bridge of thirteen arches proposed to be erected over the Boogairoo, on the high road from Nellore to Cuddapah. After crossing the Beerapairoo, for which a bridge was being built at the date of the Civil Engineer's report (2nd April 1855), the next serious obstruction to the uninterrupted passage of the traffic on the Nellore and Cuddapah road is this

river; which, after throwing off numerous irrigation channels and draining an area of about 400 square miles, pours its waters into the Pennaur in the neighbourhood of a village called Kolagotla about ten miles to the south east of the site selected for the bridge. On the completion of the work now recommended, there will remain it is said but one large stream to be bridged in the Nellore portion of this line of road: this is a jungle stream called the Kutmunairoo, near the eastern foot of the Dooranella pass.

77. In designing the work, the Civil Engineer had in view strength rather than beauty; and he departed therefore from the ordinary proportions to secure the solidity he sought, preferring also the segmental form of arch on account of its facility of construction. The Chief Engineer has however revised the plan, reducing the number of arches from fifteen to thirteen and increasing the span from 40 to 45 feet. He has also reduced the bulk of the piers, which were unnecessarily thick in his opinion, and has thus improved the architectural appearance of the structure, while he has diminished the cost from Rupees 41,768 the sum estimated by the Civil Engineer to the present amount of Rupees 38,558.

No. 26. First class road between Ghooty and Rayalcherroo in Bellary—Rupees 31,100.

78. No. 26 provides for making a first class road from Ghooty to Rayalcherroo in the district of Bellary, a distance of 13½ miles, at a cost of Rupees 31,100. The road forms part of the line from Bellary to Cuddapah, which was taken in hand during the famine of 1854; and while it is of much importance to the district of Bellary itself, it will also prove of great value to the country west of Ghooty. Its importance is further enhanced by forming part of the line from this inland district to the coast, through the district of Cuddapah and Nellore; and it is recommended therefore to be made on the scale of a first class road. The Civil Engineer has not estimated for the larger bridges, but only for the smaller ones and tunnels. A great part of the surface crossed is of Cotton soil, and a large expenditure is therefore necessary in gravel and metal, for if the materials for the surface of the road were sparingly used, they would be soon crushed into the soil and lost. No returns of traffic have been submitted; but the

position and direction of the line appear sufficient guarantees of the heavy traffic which it will carry when put into an efficient working condition.

	Rupees.
Earthwork and turfing..................	6,942
Gravel and metalling..................................	14,450
46 Drains..	6,881
Sundries and contingencies...........................	2,827
Total..	31,100

No 24. Completing road from Cuddapah to Tolapodatoor on the Bellary frontier—Rupees 78,710.

79. This is an estimate for completing the road already partially formed from the town of Cuddapah towards Bellary viâ Ghooty as far as the frontier of the district at Tolapodatoor, a distance of 52 miles. The road is another part of the line referred to in the preceding para. as having been undertaken in the early part of 1854 with the object of giving employment to the people suffering from the scarcity of that year on a general sanction, which was understood by the local Officer to signify 1,000 Rupees a mile as in the case of the other famine roads. On that authority a sum of Rupees 55,954 is stated to have been spent on this portion, being at the rate of a thousand rupees per mile for 56 miles; that having been then supposed to be the distance, though a survey and correct measurement have since shewn it to be only 52 miles. The Civil Engineer of the Division submitted an estimate of Rupees 98,060 for completing this road, which he said provided for earthwork, metalling and Masonry leaving only the large rivers, each having beds of half a mile wide unbridged. The Chief Engineer however considered the water way of some* of the Bridges provided for to be inadequate; he therefore struck out those estimates and proposed to have revised estimates prepared for entry in the Budget of 1857-58. The Civil Engineer's estimate has thus been reduced to Rupees 78,710 which provides for

*Bridges struck out.

1	Bridge of 7 arches, 18 feet span			2,650
1	do	6	18	1,970
1	do	9	21	4,190
1	do	7	25	4,240
1	do	7	18	2,500
1	do	3	18	1,350
1	do	4	18	1,530
1	do	4	18	1,020
				19,350
	Civ. Engr's. est.			98,060
	Revised estimate			78,710

	Rupees.
Earthwork	4,684
Metalling	40,567
Stone revetments	574
77 Tunnels	5,772
41 Road dams	2,282
13 Bridges	18,071
	71,950
Superintendence	6,760
Total	78,710

The Civil Engineer's estimate added to the previous expenditure gave a total of Rupees 1,54,014 averaging Rupees 3,000 per mile, which will be the eventual outlay, though the present reduced estimate makes it only Rupees 2,589 per mile.

80. The traffic on this road is not at present very great ; nor can this be a matter of surprise, if, as stated by the Civil Engineer the new road so far as it has yet been made rather tends to obstruct than forward the means of communication. There seems no doubt however as observed by the Chief Engineer, that when thoroughly made, the road will be the line of a very important traffic ; and the Government strongly recommend the project for sanction. Between Tolapodatoor the western point of this part of the line, and Rayalcherroo the eastern extremity of that provided for in No. 26, is a distance of 32 miles the completion of which remains to be provided for ; the road from Ghooty to Bellary, 42 miles is also hitherto unmade with the exception of a small part which appears to have been improved in 1854 by the famine coolies ; an estimate for this road will be called for to be entered in the Budget of 1857-58.

No. 25. Bridging the Bellary and Humpsagur Road—Rupees 59,250.

81. No. 25 is an estimate of Rupees 59,250 for bridges and drains on the road from Bellary to Humpsagur ; which will complete that road sixty-five miles in length as a first class road. The works proposed occur on 45 miles of this distance, being between Gudyganoor and Humpsagur. The line was undertaken in communication with

the Bombay Government being part of a continuous line to be formed from Bellary to the western coast in Canara through the Dharwar Collectorate. The road is one of much importance as it leads from the heart of the most inland District of the Madras Presidency, as directly towards the western coast as the nature of the country permits. The estimate has been carefully prepared on the data generally used in the Bellary District.

No. 30. BRIDGE OVER THE COOUM AT DACUMBODE, THE RAILWAY STATION NEAREST TO TRIVELLORE—RUPEES 26,860.

82. This estimate provides for the construction of a bridge of twelve arches over the Cooum river at the village of Dacumbode in the Peddapolliem talook of the Chingleput District. At this village called also Pereacooppum by the Railway Officials, there is a Railway station ; and it is the nearest one to Trivellore, a large town situated on the high road from Madras to Cuddapah viâ Coratoor and Naggery. At Dacumbode also several cross roads meet, viz., from Conjeveram, Wallajabad, and Streepermatoor, this point of junction being the most convenient for passing into Trivellore, well known as a place of great resort. The Cooum river runs almost parallel with the Madras and Arcot Railway and within a short distance from it, and being occasionally impassable for days together cuts off at such times all communication between the country on its right bank and the Railway station on its left and the town of Trivellore also. The site selected for the bridge is therefore a most appropriate one, and the bridge itself is a very necessary work ; as without it access to the Railway will be completely cut off from a large and populous tract of country bordering the right bank of the Cooum, and in which is carried on a very considerable trade in thread and other materials used in the manufacture of cloths, muslins, carpets, &c. The accompanying little sketch shews the portion of the Madras and Cuddapah road between Coratoor and Trivellore which is now under construction under an estimate of Rupees 14,417 sanctioned in December 1854 ; and which by this diversion is to be led over the proposed new bridge. The sketch also shews the position of Dacumbode, and a road marked red which it is under contemplation to construct from Streepermatoor to the bridge, to connect that place with the Railway. The amount of the estimate for the bridge as corrected by the Chief Engineer amounts to Rupees 26,860 ; a front and retaining wall with an apron under

the arches, having been added for security, and the arches changed from segmental to elliptic. Each arch will have a span of forty-two feet with a rise of ten.

No. 31. Road from Chingleput to Taitoray in the North Arcot District.—Rupees 41,130.

83. The next item of 41,130 Rupees provides for a road in the District of Chingleput, from the causeway over the Palaur river near the town of that name, the head station of the Collectorate, to Taitoray a village in the North Arcot District, a distance altogether of a little more than twenty six miles. The road is shewn in the accompanying sketch; it is to run through Ootramulloor, the Cusbah or chief town of the talook of the same name, between which and the town of Chingleput it is stated there is no road of any kind at present. From Ootramulloor it is to be carried on to Taitoray, where it will join the road recently constructed from Conjeveram through Wandiwash and Thellar to Tindevanum on the Southern Trunk Road. Between the talook of Ootramulloor and this road there has not been any practicable communication, so that as the Chief Engineer reports the inhabitants have been almost shut up as it were within their own talooks; and it is to obviate this and to open up a fertile tract of country that the present estimate is submitted. It was urgently called for by the late Collector Mr. Cochrane, and it provides for a properly constructed road, bridged, tunnelled and gravelled, with an allowance for superintendence. The estimate averages 1,580 Rupees a mile.

No. 33. Road from Trivatoor to the Palaur annicut—Rupees 38,600.

84. This estimate of 38,600 Rupees provides for the construction of a 2d Class road from Trivatoor, the Cusbah station of the talook of the same name, to the Palaur annicut in North Arcot. Ultimately it is intended to prolong the road southwards to Wandiwash, a distance of about twelve miles, where it will join the road from Conjeveram southwards to Tindivanum, Pondicherry, and Cuddalore. The road is one of great importance and has been long required; the portion now proposed will connect Trivatore, a talook Cusbah in the south of the District with the town of Arcot, and by means of the bridge over the Palaur at the Annicut, with Wallajahnuggur, Sholinghur, Chittoor and all the northern parts of the District. The

proposed eventual prolongation southwards which it is hoped will have a place in the Budget for 1857-58, will greatly increase the utility of the road. The length now to be made is 19¾ miles; it is to be gravelled and provided with all the necessary bridges, tunnels, &c.; the estimate comprizes the following items.

	Rupees.
Earthwork, gravelling, &c.	25,990
5 Bridges of 3 arches each	5,500
19 Tunnels	5,074
Sundries, &c.	2,036
Total	38,600

No. 34. Bridge across the Palaur at the Annicut—Rupees 94,400.

85. In reporting the arrangements made by the Civil Engineer of the Fourth Division for the execution of the Palaur annicut project for which an expenditure of Rupees 8,66,114 was sanctioned by the Honorable Court of Directors in their Dispatch of the 8th November 1854, No. 23, para. 3, the late Board of Public Works in a letter dated 11th January 1855 recommended for the favorable consideration of this Government a proposition from that Officer to lay the foundations for a Bridge in front of the Annicut. This they observed would be an extremely useful work in so populous a part of the Country and on the line between Madras and the towns of Arcot and Vellore; it would also, they added, strengthen the annicut if placed immediately in front of it, as designed by the Civil Engineer; and would further afford the means of access to the annicut sluices at all times, an object of no little importance. The cost of the foundations was estimated at Rupees 20,250, and on the grounds above stated this Government granted the amount out of the funds allowed by the Honorable Court in the general sanction of the annicut project, for such extra works as it might be found advantageous to execute in connection with it.

86. The foundations have been built, and it is now proposed to complete the design by the construction of a bridge of 53 elliptic arches, each of 43 feet span and ten feet rise, at a cost inclusive of the charge for superintendence of Rupees 94,400. This Bridge will be of

very great use. In the first place it will serve for the western Trunk Road from Madras to Vellore and Bangalore, which now crosses by a ford at Tengal; a passage always tedious, often dangerous and sometimes impracticable. It will also be the means by which all traffic from Chaitput, Trinomaly, Poloor, Arnee and Timery to the south, will cross the river to the western Trunk road, to the Railway, or further on to Sholinghur, Chittoor, Tritany and Triputty.

No. 40. BRIDGE OVER THE VELLAUR ON THE SOUTHERN COAST ROAD. RUPEES 35,020.

87. The southern coast road extends from Madras, viâ Pondicherry and Cuddalore, to Chellembrum a place situated within a few miles north of the Coleroon river and distant from Madras 126 miles. It is crossed by the Areeaucooppum, Killinjeear, Ponyaur, Guddilum, Paravenaur, Vellaur and Coleroon rivers, of which the two first are within the French Territory of Pondicherry. The French Government have already established commodious works on the same road within the limits of their Territories, and it will be in the recollection of the Government of India that a project for constructing a timber bridge across the Killinjeear at the joint expense of the English and French Governments was mentioned in para. 70 of the Report* on the Budget of 1854-55; and in para. 99 of the same Report, it was intimated to the Government of India that the construction of a large bridge over the Coleroon, chiefly from surplus Pagoda Funds of the Tanjore district, had already been authorized by this Government. The estimate for 42,000 Rupees which was reported upon in that para. provided amongst other items a bridge over the Paravenaur. In the Budget of the succeeding year 1855-56 an estimate amounting to Rupees 50,000 for a bridge over the Ponyaur was included, and the Guddilum having been previously bridged, the only remaining work to complete the communication on this line, is a bridge over the Vellaur for which an estimate amounting to Rupees 35,020 is now submitted. The plan consists of ten elliptic arches of 50 feet span, and 12'-6" rise.

No. 41. ROAD FROM TRICHINOPOLY TO SALEM BOUNDARY, VIA TORRIORE. RUPEES 50,000.

88. The next estimate provides for the construction of a road

* Dated 11th October 1854.

from Trichinopoly, viâ Torriore, to the Salem boundary in the direction of Ahtoor, at a cost of Rs. 50,000. This road is 40¾ miles in length; it follows the valley of the Iyaur a fertile and well watered tract, and will afford the means of transporting all its valuable products either to Trichinopoly, or northwards to the towns of Ahtoor and Salem.* The existing communication is in a very wretched condition, almost impracticable for carts; and the construction of a good road will prove a valuable boon to the country round. The line lies over Cotton soil for some distance, and there are a number of petty streams to be crossed, the tributaries of the Iyaur. But the country is level and there are neither hills nor large rivers to be crossed. The line enters the Salem boundary between two ranges of hills, the Colamalay and the Pacheymalay; and passing on to Ahtoor, it meets the Madras and Salem road. It is expected that a considerable increase of traffic will follow the completion of this road, as the route is already much frequented, and Torriore is one of the largest towns of the district. There will be thirteen bridges and 75 tunnels, and the whole cost is at the rate of 1,200 Rupees per mile. The estimate which is strongly supported by the Collector comprizes the following items.

	Rupees.
Earthwork and metalling	24,018
13 Bridges, and repairing one	13,495
75 Tunnels, and repairing others	10,460
Superintendence and contingencies	2,027
Total	50,000

No. 42. ROAD FROM TRICHINOPOLY VIA LAULGOODY AND WOODIARPOLLIEM, TO JOIN TRUNK ROAD, No. 9—RUPEES 43,600.

89. The line of road to which the next estimate refers, is also in the Trichinopoly district; it runs from the chief town, through Laulgoody, Kelapollore, and Woodiarpolliem, to a Village called Gungacondapolliem where it meets Trunk road No. 9. The line has been already partially improved; and it is now proposed to extend and bridge it for which the present estimate of Rupees 43,600 provides. It traverses a level country throughout, partly of cotton and partly of red soil, and is intersected by several streams. The Collector is well acquainted with the line, and strongly recommends its completion.

There is no considerable traffic at present, but experience has shewn that a good road invariably creates a traffic. The talook of Woodiarpolliem has been a much neglected part of the district. It has great natural advantages; and with the reduced and simple assessments lately introduced, and with access to markets opened to it by this and other roads, it will speedily improve. It is also about to have greatly extended irrigation by means of a Channel from the Coleroon. The road now proposed will serve as a feeder to Trunk road No. 9, which connects Combaconum with Madras; and it will at the same time promote and export trade from the district. The total length of the portion included in the estimate is 49 miles and 7 furlongs; so that the rate is some what less than 900 Rupees per mile. There are sixteen masonry bridges exceeding nine feet in span, and eighty-nine tunnels of smaller size. The estimate which is calculated on the usual rates of the district is moderate but sufficient, and comprizes the following items.

	Rupees.
Earthwork and metalling	13,360
16 Bridges	17,326
89 Tunnels	10,806
Superintendence and contingencies	2,108
Total....	43,600

No. 43. BRIDGE OVER THE VIGAY RIVER AT MADURA.
RUPEES 42,200.

90. The next item is an estimate of Rupees 42,200 for constructing a bridge of 25 arches of 36 feet span across the Vigay river at the town of Madura, on the main road running south from Madras through Trichinopoly, Madura and Tinnevelly, to Travancore. The Vigay will shortly be the only un-bridged river between Trichinopoly and the Travancore country. At present for the purposes of trade there exists a stone causeway in the bed of the Vigay, which was reconstructed in 1850 at a cost of Rupees 2,450, and by this means bandies contrive to cross over during the greater part of the year; but during the N. E. Monsoon, it is quite impossible for carts to attempt the passage for days together, and even the tappaul is occasionally delayed when the river is in high flood. The Collector of Madura warmly supports the proposal to build the bridge, and he grounds his recom

mendation on military and commercial considerations. Writing on the 7th December 1854 to the Civil Engineer of the 8th Division he says, "The importance of road No. 4 in a military point of view cannot be denied, nor can it be gain-said that its usefulness to this end is much impaired by the want of the bridge I propose. During the greater part of last month the river was impassable to Artillery, and for some days to soldiers. Even now the passage would be attended with delay and difficulty. Supposing military aid from the head quarters of the division were urgently required to the southward, what might be the consequence of this state of things?"

"The commercial value of this road is also, I think, much under-rated. However much general analogy would lead us to suppose that traffic would run from the westward to the coast. I think you will concur with me in opinion that there is really more trade on No. 4 than on any other road. I never ride along it in the morning without meeting lines of bandies, and in the evening the numerous enclosures of the town of Madura are full of them."

91. The proposed bridge will also serve for the District road which connects the chief town of the Collectorate with Dindigul, the Capital of the western part of this extensive district and the station of the Sub-Collector, and through that town with the Coimbatore district. This road also is one of much traffic, as cotton from Coimbatore and Dindigul is thus brought to the sea port of Tuticorin, as also other produce of the west seeking an eastern market.

92. On the plan now submitted, the bridge is to be constructed over the stone causeway, which will be made to serve as a flooring; the piers are to be built on wells, as the bed of the river is composed of sand throughout; and a line of wells is to be sunk in front and rear to serve the purpose of retaining walls to the flooring. The piers will be six feet in height, as that is the height of an ordinary high fresh; and the arches which are elliptic will rise six feet above the piers, being one-sixth of their width. The arches are comparatively small with the object of avoiding a high ascent from the low banks at each end. The breadth of the roadway over the bridge will be 24 feet between the parapets, to allow of sufficient room for the extensive traffic in and out of the town, and for the numerous travellers on foot who are continually passing and repassing. The rates allowed in the

estimate are the usual rates of the locality, and are considered by the Chief Engineer to be moderate and sufficient.

No. 44. PULKANOOTH AND NELLACOTTAH ROAD IN MADURA.

RUPEES 25,560.

93. This estimate of Rupees 25,560 is for renewing that portion of the line leading from Paulghautcherry to the Town of Madura, which lies between Pulkanooth and Nellacottah, being 23¾ miles. It has already been partially improved in former years. From Nellacottah the Cusbah of the talook of that name, the road runs over firm soil for a distance of nine miles, till it reaches the Coodavanaur river over which there is a bridge of five arches in good order. It then traverses successively clayey, gravelly, swampy, and finally cotton soil; the last description impassable after rains. No considerable streams occur except the Coodavanaur, which as just stated is already bridged; there are numerous minor jungle streams, some of which the Civil Engineer reports to be already bridged, while the remainder are provided for in this estimate either with bridges or road dams. The estimate provides for merely excavating side channels where the soil is favorable, metalling those parts which become muddy during the monsoon, and constructing such masonry works as are considered to be necessary. The road of which this forms a part is an important line, viz. that from Madura to Paulghaut and the western coast. A return of traffic submitted for the month of last September shews a total number of 1,443 bandies conveying cloths, cotton, timber, salt, grain, and other articles of consumption. The estimate consists of the following items.

	Rupees.
Earthwork....................................	6,441
Metalling, turfing, &c..........................	9,407
14 Pavements..................................	2,240
Building 2, reconstructing 1, and repairing 4 bridges	1,736
10 Tunnels and 3 drains..........................	1,075
28 Side dams..................................	717
Tools and contingencies..........................	1,084
Superintendence................................	2,860
Total..	25,560

No. 46. Road from Palamcottah to Tuticorin.—Rupees 67,361.

94. This estimate provides for constructing a new road from Palamcottah to the seaport of Tuticorin, altogether a distance of about 32 miles. A good cart road from Palamcottah to Tuticorin the principal port of the district, is becoming more and more necessary, as large quantities of cotton for export pass by this road to the coast, and the greater proportion of the goods imported into Tinnevelly finds its way into the interior by the same route, which is also used by travellers to and from Ceylon. At present, although, as just said, the traffic is large, there is no made road. The line is chiefly over black Cotton soil, intersected by numerous streams; it is exceedingly difficult, and at times impassable, some of the streams being unfordable when swollen by the monsoon rains and both foot passengers and carts are often detained by them. No money has been spent on this line for ten years, and it cannot be called more than a mere track.

95. It is now proposed to abandon this line, partly on account of the very unfavorable ground over which it passes, and partly because it crosses the Tambrapoorny river, just above the Murdoor annicut, where there is always some depth of water, and to take a new line a little to the south of it. Starting almost due east from Palamcottah, advantage will be taken of an existing track as far as Moorpanaud, the Cusbah of the Veddoogramum talook, six miles distant on the banks of the Tambrapoorny; four and a half miles of this extent runs over red gravel and the remainder over causeways through paddy fields, and being bridged and tunnelled will require only a small outlay to put it in order. At Moorpanaud the river is said to be frequently fordable, while it is not so at Sevellapairy from the cause already mentioned. A bridge ought however to be built at Moorpanaud, one of about fifteen arches of 60 feet span; but the Engineers have deferred it for a future Budget, on account of the difficulty of carrying on many large works at the same time. Crossing the Tambrapoorny the proposed route continues in an easterly direction by a little north, and running through the paddy fields of the village of Valnaud takes the northern slope of the range of hills of that name, and passes through Ellianaickenputty seven miles distant from Moorpanaud, the soil being for the most part red gravel very favorable for road making. From Ellianaickenputty the road is to be taken still in the same direction to Yuttaraputty, 4½ miles more; chiefly

over black cotton soil, requiring a substantial upper stratum of metal to make it practicable for carts at all seasons; but stone and gravel can be had either at Ellianaickenputty or Vuttaraputty, so that the greatest distance the materials would have to be carried is only 2¼ miles, and no streams of any consequence occur in this distance. At Vuttaraputty, the soil changes again to red gravel and continues so for a short distance beyond its limits, when it becomes red clay mixed with sand; but the ground will be quite practicable for carts, when properly drained by side channels and road tunnels or pavements placed at intervals. Between Vuttaraputty and Cootadengaud 4½ miles lower down, a jungle stream of some little magnitude and one or two minor streams occur, which will require to be bridged. In the immediate vicinity of the last named village the soil again changes to red gravel, and the line selected for the new road as the best is continued over high ground to the south of Cootadengaud and north of the adjacent village of Poothoocottah, and runs thence to the south end of the Nullamullay breached tank bund. At this point a bridge will be required, as the drainage of a considerable tract of country is here collected into a large stream called the Ooppaur; the bridge will be of nine arches of 45 feet span; this will be the only work of any magnitude on the new line. From Nullamullay red earth mixed with sand occurs again to within 1½ mile of Coorumpalliem, whence sand prevails for the remaining 5¼ miles to Tuticorin. The following is a comparative statement of the soils and distances on the old and new line.

	Old line.			New line.		
	Miles	Fur.	Yds.	Miles	Fur.	Yds.
Black cotton soil................	17	3	91	5	5	90
Red gravel do..................	6	4	0	12	6	50
Causeway through Paddy fields....	4	2	0	2	6	0
Sand..........................	3	4	0	7	1	25
Red clay and sand...............	0	0	0	3	5	140
Total..	31	5	91	32	0	85

96. The estimate for the whole 32 miles amounts to Rs. 67,361, being about Rupees 2,072 per mile. The value of the road may be judged of by the accompanying table shewing the export and import trade of the port of Tuticorin for ten years from Fusly 1252 to 1261.

The annual value of the exports dutiable and not dutiable during the ten years, averaged Rupees 13,64,279; and there was a decided and continued increase, for while the average of the first five years was Rupees 11,06,896, that of the second was Rupees 16,23,661. The yearly value of imports during the same period averaged Rupees 69,364; and here also there was a decided process of increase. The falling off in the duty on exports observable after Fusly 1257 is entirely attributable to the removal of the duty on Cotton, the export of which will be found from column 5 to have much increased subsequently. A return of the description and extent of the annual traffic carried on between Tuticorin and Palamcottah has also been furnished by the Collector, who anticipates that the traffic will be much augmented when the new line comes into operation, as it will afford cheap communication between the fertile tracts bordering the Tambrapoorny and Chittaur rivers and the port of Tuticorin, thus enabling the ryots to export their surplus grain.

No. 48. BRIDGE OVER THE AMBRAVATY AT CAROOR.
RUPEES 63,830.

97. No. 48 is an estimate of Rupees 63,830 for bridging the Ambravaty river at Caroor, on the high road from Trichinopoly to the Neilgherries. The work is much wanted, as the Ambravaty is the only obstruction to an uninterrupted communication between Trichinopoly on the one hand and the Neilgherry Hills, Coimbatore and Paulghatcherry on the other.

98. The plan is for a brick bridge of sixteen elliptic arches of 50 feet span, with piers eight feet high, and a rise of arch of 12½ feet; breadth of road-way 22 feet. The total breadth of waterway allowed is 800 feet; and the sectional area of the highest flood is 8,000 feet. The foundations are to be laid in wells eight feet deep, connected together by double retaining walls covered with stone in chunam, and protected by a flooring of the same material. The Chief Engineer approves the design, the waterway being ample and the security of the foundations fully provided for.

No. 49 BRIDGING THE GUERSAPPAH GHAT ROAD.
RUPEES 25,994.

99. An estimate to the amount of Rupees 20,425-9-11 for the formation of this road was entered in the Budget of 1854-55; but under the

enlarged sanctioning power conferred on this Government as communicated in Mr. Allen's letter of the 17th November 1854, No. 1207, it was sanctioned on the 14th December following. The present estimate is for completing the line with bridges. In the letter of this Government to the Government of India, dated 11th October 1854, forwarding the Budget of 1854-55, paras. 47 to 50, will be found a brief description of this road, and its progress from a trace to a bullock track, which introduced the proposal of its conversion into a first class road at the abovementioned cost of 20,425 Rupees. The road as there described, is 16 miles in length and extends from Guersappah, the highest navigable point on the Honore river in Canara, to the summit of the Ghât at Kodkunny. It was traced originally at a cost of 1,000 Rupees and was subsequently opened into a bullock track at an additional outlay of 4,000 Rs. The Ghât was the scene of a busy traffic even in its unimproved state, and its improvement immediately led to increased sales of Salt at the Guersappah Cotars ; while its position between the Devamunny and Colar Ghâts renders it most favorable for receiving the traffic of the rich country intervening between them. The Civil Engineer has reported that the sanction granted as above noticed, for converting the line into a first class road, had been drawn upon to a certain extent during the last season, and will have been worked out during the current official year. He has also informed the Government that the Commissioner for Mysore has placed at his disposal the sum of Rupees 12,185-8, part of an estimate for bridging and opening to first class width the road that joins Talgoopah in the Mysore country to the Guersappah road at Kodkunny, that amount being the contribution of the Mysore state towards the formation of this valuable Ghât, the approach to which from Sheemogah in the Nugger Division of Mysore, is said to be in progress towards completion. The importance of the road having been thus already recognized, there would appear to be no necessity to urge further reasons in support of the present proposition. The bridges forty-nine in number are all of a minor character, of one and two arches, varying in span from 6 to 30 feet ; there are also sixteen covered drains, the whole occuring on the road from the head of the Guersappah Ghât to Kodkunny, the point of junction with the Siddapoor and Talgoopah lines. The Collector cordially supports the plans of the Civil Engineer, and the Chief Engineer has further expressed his entire concurrence with those Officers.

BUILDINGS.

100. Under this head only seven projects enter into this statement, there being only that number of new buildings, or alterations or improvements of buildings, newly brought forward, exceeding the estimated cost of 25,000 Rupees each. Of these seven projects five are Military, to the aggregate estimated cost of Rupees 10,56,932 ; one is connected with the Revenue, and the fourth comes under the head of "Public." One of the number, viz, the Secunderabad Barracks No. 58 in the list has already been sanctioned by the Government of India, the remaining six will now be severally noticed.

			Rs.
No.	11	Buildings for the Sappers and Miners at Dowlaiswarum..........	47,028
,,	27	New Hospital for the European Barracks at Bellary	82,330
,,	56	Building Married Men's quarters in the Dragoon barracks at Bangalore..........................	90,820
,,	57	Improving the Dragoon Barracks at Bangalore.........................	1,55,600
,,	58	Secunderabad Barracks....	6,81,154
			10,56,932
No.	51	Additions and alterations to the Sea Custom House.....	70,040
,,	52	Rebuilding the Civil Audit Office.	37,350

No. 11. Buildings for the Sappers and Miners at Dowlaiswarum. Rupees 47,028.

101. This item of Rupees 47,028 is for providing buildings for the accommodation of the head quarters of the Sappers and Miners stationed at Dowlaiswarum. The estimate and plans have been already laid before the Government of India with Colonel Marshall's letter of the 6th September 1855, No. 2506, and this Government have been informed by Captain Dicken's letter dated 2nd November 1855, No. 2289, that they will be considered in connection with the rest of the present budget. The Buildings are rendered necessary by the transfer of the head quarters of the Sappers and Miners from Mercara to Dowlaiswarum. In submitting the plans, the Chief Engineer explained that they had been prepared in accordance with instructions received through the Quarter Master General, with the modification however of a ten feet verandah to the European barracks, married men's Staff Serjeant's and Instructor's quarters, rendering necessary an additional height to the walls from fourteen to seventeen feet. He further explained that the Commissariat godown was on the standard plan and would give accommodation for six doolies four European and ten Native tents with their appendages, and two carts for the sick ; that the double solitary cell was on the standard plan ; and

that the dimensions of the doors and windows had been increased from $6\frac{1}{2} + 3\frac{1}{2}$ and $4 + 3$ respectively to $8 + 4$ and $5 + 3$, and their positions altered to suit the changes made by the addition of the verandahs. The walls generally are to be of brick in clay with a coping of brick in chunam, and the roof, floor, and fittings of a permanent character.

No. 27. NEW HOSPITAL FOR THE EUROPEAN BARRACKS AT BELLARY. RUPEES 82,330.

102. The requisition for a new hospital for the European Regiment stationed at Bellary originated with the Medical authorities. On the 21st August 1854, the Medical Board addressed the Quarter Master General of the Army pointing out the necessity of a new hospital, and forwarding extracts from the annual Medical report of the 3rd Madras European Regiment. From these extracts it was observed that twenty-four years before, Dr. Henderson of her Majesty's 48th had recorded his opinion of the necessity of a permanent airy and comfortable hospital in lieu of the existing building. In 1849 again, Garrison Surgeon Eyre condemned the present hospital as faulty in its plan, as being too low, too much enclosed, too narrow, and generally wanting in accommodation; and so ill-constructed, as to be incapable of proper ventilation without risking the health of the patients, by currents of wind from the open doors and windows passing too close to their cots. The Medical Officer in 1854 also, declared the hospital to be decidedly too narrow, being barely eighteen feet wide, so that allowing six feet two inches for the length of each cot, and the distance of one foot between the head and the wall, there was a space of only three feet eight inches in the centre. He further complained of the want of separate and appropriate bathing and washing accommodation for the male and female patients; and concluded his representation in the following words. "I trust it will not be deemed out of place on my part, in offering my opinion that in accordance with the present advanced state of Medical science and improvement of every kind, as affecting the soldier in health or sickness, the present building as a hospital does not accord. Year after year will successive Medical Officers have to report on its want and improper ventilation, narrow wards, low tiled roof, and almost hermetically enclosed high walls, within thirteen yards of it all round the square. Every annual addition of improvement for the comfort of the sick in this respect that a Surgeon can

recommend, will only be of a merely temporary nature until the building is added to and improved on by an upper story as recommended by Dr. Henderson in his report previously quoted, or I would beg to add until the present building be appropriated to other purposes or razed to the ground, and a new one erected so as in some degree to harmonize with the elegant and airy barracks just finished for the soldiers. A lofty upstair-hospital properly glazed and venetianed as sanctioned in Bengal, would I most dutifully submit be ultimate economy to the State, by tending to render a station that has hitherto been considered a very fatal one to Europeans comparatively healthy. The barracks being now elegant, comfortable, airy and complete ; a hospital corresponding to the same is wanting for the soldier in sickness, which the one in its present state can never be."

103. The Medical Board added the weight of their opinion as to the desirableness of a new hospital ; as the present one besides being low and incommodious, is in the form of a square always objectionable as regards thorough ventilation. His Excellency the Commander-in-Chief agreed in opinion with the Medical authorities, and pointed to the Jackatallah hospital as a model, in regard to its lofty and spacious wards and verandahs so applicable in any climate. The Military Board too, who were called upon to report on the subject, expressed themselves sensible of the necessity for constructing a building of superior accommodation for the sick at Bellary. Under these several representations the Government called for a detailed plan and estimate of the required building, which were eventually received from the Chief Engineer. They provide for an upper storied hospital complete in every respect with all the necessary separate wards, buildings, offices and out-houses. The original estimate submitted amounted to Rs. 79,930 ; but a supplemental estimate of Rupees 2,400 for adding cross walls and three cookrooms subsequently recommended and approved in the Military Department, raises the full estimated expenditure to Rupees 82,330.

No. 57. Altering and Improving the Dragoon Barracks at Bangalore for the accommodation of a European Infantry Regiment. Rupees 1,55,600.

No. 56. Building two Blocks of married men's quarters in the above Barracks. Rupees 90,820.

104. During the last twenty years various propositions have been submitted from time to time to the Government, for improving the

accommodation of the European troops at Bangalore ; but up to this time they have led to no pratical result. Bangalore contains Barracks for a Regiment of European Cavalry, and one of European Infantry. Both sets have been long condemned as unfit for their use ; but especially the Infantry Barracks, of which Colonel Sim the Chief Engineer reported* so long ago as 1844 in the following words. "It was with regret that I discovered that owing to radical defects in the form and construction of the Buildings, and want of sufficient ground, it is impracticable for any moderate improvements to convert them into what would in the present day be deemed a suitable barracks for European troops. The barrack is very narrow, being only eighteen feet wide; and is built in the form of a quadrangle which is not favorable to ventilation and drainage, and the ground is much too confined to admit of new buildings being erected on it according to the Bengal standard plan. The Buildings are also old, their roofs decayed and much infested with vermin.

"In regard to comparative healthiness, the Medical Officers entertain also an unfavorable opinion. The Buildings from their form and crowded arrangements, and from the native Bazars having been injudiciously allowed to approach too near to them, are imperfectly ventilated and prejudicial to cleanliness and health.

"I was in consequence compelled to abandon the idea of improving the European Infantry barracks and to seek for a favorable situation on which to erect new buildings."

105. The original proposal made by the Military Board in 1842† was then re-submitted; viz. to build entirely new barracks for the Dragoons on an eligible site (the race course,) and to improve the buildings hitherto occupied by them for the accommodation of the Infantry Regiment. The necessity of these changes "at some early period" was acknowledged‡ by the Honorable Court, and their authority was granted for carrying them into effect at such time, as with reference to financial and other considerations it might be deemed most suitable. Up to the present time however nothing has been done. The with-

* Colonel Sim's Report, 7th May 1844, Paras. 4 to 6.

† 21st June 1842.

‡ Honorable Court's Military Dispatch, 4th Dec. 1844, No. 74, Paras. 9 to 14.

drawal of H. M. 12th Lancers, and the unlikelihood of that corps being soon replaced, have now simplified the question to that of altering and improving the present barracks only for the accommodation of the Infantry Regiment, so as to render them better adapted for the accommodation of European troops, and of providing better quarters for the married men. Both sets of buildings were inspected last year both by the Right Honorable the Governor and by His Excellency the late Commander-in-Chief ; and the Infantry barracks were found to have been justly condemned. The Right Honorable the Governor in Council, in a minute recorded on the subject declared that the building possessed every possible fault. The subject has been carefully discussed by the Government, in communication with the Military and Engineer Authorities ; and the plans now brought forward are those which have been finally approved, having been prepared by the Chief Engineer as to each detail, in accordance with the instructions furnished by General Anson.

106. There are two separate estimates, Nos. 57 and 56. That in No. 57 to the amount of Rupees 1,55,600 is for improving eight ranges of barracks at a cost of Rupees 19,450 each. The improvements proposed consist in dismantling the verandahs and roof; raising the main walls an additional height of ten feet, making twenty-two feet in all; replacing the roof with the addition of ridge ventilators ; and adding an enclosed terraced verandah twelve feet wide in the clear, enclosed with swing ventilators above. This verandah is to have Bengal doors and windows, glass above and venetian shutters below, and outside of it there is to be a tiled open verandah eight feet wide. The north end of each range is to be lengthened forty-one feet, thus providing accommodation for two married Serjeants ; and the south end 114 feet, with two rooms for each quarter for an unmarried Serjeant and a Store-keeper. The works are altogether such as to effect a very great improvement in the buildings. The Chief Engineer in reporting on the estimate states, that the rates are high as usual at the station, but that the attention of the Executive Officer will be directed to the reduction of the charges to the lowest possible amount.

107. No. 56 is an estimate of Rupees 90,820 for building two blocks of married men's quarters in these barracks, for the accommodation of fifty families. Each dwelling is to consist of two rooms, one fourteen feet by twelve, the other fourteen feet by ten ; with walls fifteen feet high, a tiled roof with a ridge ventilator, and a front

verandah. To each quarter are attached out-buildings, cookroom, washing room, and privy. The compounds are to be divided from each other by party walls, with one back entrance to two quarters; and an enclosure is allowed in front of each, fifty feet in length. The arrangements of these buildings are considered by the Chief Engineer to be convenient and suitable to their purpose; and he reports that sufficient privacy will be secured to each family with adequate means of comfort, salubrity, and cleanliness. The specification and estimate allow for good materials and construction; and the rates are those now current at the station. Some subsidiary works in connection with these buildings will be found provided for in Budget list No. 2, which it has been found necessary to sanction, to carry out the contemplated improvements of the barracks.

No. 51. Improvements to the Custom House.
Rupees 70,040.

108. No. 51 is made up of two items amounting respectively to Rupees 50,340, and Rupees 19,700, and comprizing two sets of improvements to the Sea Custom House at Madras. The former of the two estimates is for enlarging the accommodation for goods within the building; while the latter is for improving the external accommodation, and for facilitating the landing and shipping of goods, and their conveyance to and from the Custom House. The necessity of providing additional accommodation for the greatly increased and still increasing trade of Madras had occupied the attention of this Government ever since 1848; the inadequacy of the present buildings to meet the requirements of the port having been repeatedly represented by the Chamber of Commerce and the Collector of Sea Customs, and having been fully admitted by the Government. To all the various plans proposed however for correcting the evil, objections had hitherto been raised, either on the part of Government or on that of the subordinate authorities; till October 1854, when the Chamber again urgently representing the insufficiency of the Custom House Buildings for the storing and sheltering of goods, suggested the enlargement of the import yard, the re-building and enlargement of the export sheds, the removal of the export shed on the beach and the erection in its stead of a verandah along the front of the Custom House. The question having been thus again agitated, a further

correspondence ensued resulting in the submission of the present plans and estimates, which have the approval both of the Government Officers, and the Chamber of Commerce on behalf of the Mercantile community; and which after careful consideration are fully approved by the Government.

109. The improvements proposed consist of an entirely new range of five sheds, to be erected in the place of the present export sheds and the space between them. The present sheds being quite unfit for alteration or repair are to be entirely removed. Each shed will be 182 feet long by 30 broad, and thirteen feet high to the bressummers; and as much of the old materials as can be brought into use will be made available in the new buildings. The removal of the export shed in front of the building besides being urgently called for on account of its dilapidated condition, is also very necessary as it is much in the way of the passing traffic; being built on the road immediately opposite the custom house, an open thoroughfare leading to Merchants offices and to the Railway terminus. In substitution of this shed, it is proposed as the least objectionable arrangement to build one along the front of the Custom House as shown in the plan, according to the suggestion of the Chamber of Commerce.

110. I am directed to bring this case to the particular notice of the Government of India, the proposed improvement being required not only on account of the deficient extent of the existing accommodation, but also of the dilapidated state of the present buildings. The sheds for the storing of goods are in so ruinous a condition as to be even dangerous, particularly the external shed on the beach, the immediate removal of which the Collector reports is urgently necessary, as latterly he has been obliged to prop it up to prevent parts falling down. The Government have also been obliged, for want of room within the premises, to authorize the Collector to rent several godowns in the neigbourhood, for the storage of goods detained for the levy of duty; no less than thirteen godowns at a monthly rent of 124 Rupees were thus occupied some months ago; and the accommodation being still insufficient, and no more godowns being available, a number of tents were at last pitched for the same purpose. In laying the present estimate originally before Government, the Chief Engineer stated that on the 1st August 1855 there were 12,000 packages under the cognizance of the Customs Department, of which one-

third were scattered about the open yard, a portion were in private godowns, and the remainder were in the tents.

111. The second set of improvements originated in a proposal of Captain Biden, the Master Attendant at Madras, to construct on the beach a series of permanent ghâts or slopes, composed of masses of granite, dovetailed, and bound with clamps of iron, like the Apollo Bunder at Bombay, or the Chundpaul ghât at Calcutta ; in order to facilitate the landing of passengers and goods, which the present rough and rude state of the beach renders a matter of the greatest inconvenience and difficulty. Captain Rawlins, to whom the proposal was referred, reported against the plan. He stated that one such ghât as those proposed by the Master Attendant, 80 feet by 36 feet, would cost about 5,000 Rupees and as four would be required at the least, the aggregate cost would amount to Rupees 20,000 for the ghât work alone. The work too would require a seaward protection in masses of stone sloping down to tide level, which for some years at least would be attended with the inconvenience of an unsettled and broken surface, by the sinking of the stones; and which consequently would call for frequent re-dovetailing and clamping, while the scattered stones would render the ghât an object to be avoided rather than sought by the boats.

112. For these reasons, the idea of an isolated ghât has been abandoned; and in consultation with the Collector of Sea Customs and the Chamber of Commerce, Captain Rawlins submitted the present modified plan, as the best that could be devised to meet the requirements of the case. The plan consists of the following details.

	Rupees.
1. Enclosure in front of the Custom House 300 ×44..	3,000
2. A porter's lodge to do.	450
3. Widening the public road in compensation for the part taken in by the enclosure and constructing a broad metalled platform sloping down to the sea, and railing in the same as an Export and Import beach....................................	5,200
4. A double line of railway parallel with the platform from the Export and Import beach to the Customs yard...............................	11,050
	19,700

The object of the enclosed space in front of the Custom house which is to extend along the whole front of the building is the security of goods in course of being landed or shipped. The small porter's lodge is designed for a Police station, at which an inventory of the goods passing into and out of the yard may be taken. Part of the beach towards the northen extremity near the railway terminus is already being reclaimed, and the roadway widened; but the improvement was to stop short abruptly at the north end of the Custom house, as shewn in green in the plan. It is now proposed to continue this increased breadth of roadway for a further distance of 250 yards, until it almost reaches Arbuthnot's groin; so that a good thoroughfare of 100 feet in breadth may be secured to the public in front of the Custom house; this part of the plan was referred by the Government to the Chief Magistrate and Superintendent of Police, who has signified his opinion that the breadth of roadway allowed will be amply sufficient for the purposes of the passing traffic.

113. The plan further provides for a broad platform nearly the whole length of the beach between Arbuthnot's and the Custom house groin, about 957 feet. This platform will be gravelled and sloped seawards; and being enclosed all round with a wooden railing and divided into two compartments, it will serve the purpose of an Export and Import beach; while the railing will prevent the petty thefts now carried on, as it will exclude idlers from its precints, and facilitate the maintenance of order and regularity among those employed within. Between the platform and the Custom house, two double lines of railway are to be laid down, one 770 feet in length parallel with the beach, and the other running at right angles into the interior of the Custom house or yard. The railways are to be provided with the necessary turn tables and traverse rails and the tops of the waggons being on a level with the edge of the platform, the goods will be rolled into them without the trouble and expense of lifting. The whole of these improvements as already said have the concurrence of the Collector of Sea Customs and the Chamber of Commerce, and they are regarded by the Chief Engineer as judiciously conceived and well considered in their details. They will prove of the highest convenience to the public, and facilitate the dispatch of business, and they will contribute to place the operations of the Customs department of the large mercantile port

of Madras in a state of efficiency, which they have never yet attained.

No. 52. Civil Audit Office.—Rupees 37,350.

114. On the 17th July last, the Civil Auditor brought to notice the difficulty he experienced in systematically arranging the records of his office on account of the very deficient accommodation, and represented that both the Superintending Engineer and the Barrack Master had pronounced the building to be too frail to sustain the weight of additional almirahs required on the upper story ; the lower one being wholly occupied as a Stamp Office ; and leaving no extra space available there. As a consequence it was stated the records were in much confusion ; some being closely packed together in the few almirahs kept upstairs ; some placed in heaps on the floor ; and others were deposited in a building at a distance from the office, to the serious inconvenience and delay of business. The Chief Engineer was called upon to report the best means of providing the accommodation necessary to meet the requirements of the Civil Audit Office ; and that Officer after personal inspection stated in reply that the building was so weak from inferior construction and age, that it had latterly been supported by several massive buttresses on the east side ; and that as the pressure of the roof and floor was thereby directed to the west side, similar buttresses would soon have to be erected there also ; while pillars would be required within for the support of the beams. Such being the state of the building, he was of opinion that it was altogether impracticable to obtain additional accommodation by erecting another story ; and that the only alternative, if the present building was to be maintained, was to construct rooms on the south side in the space dividing it from the adjoining building lately occupied as the Post Office ; an objectionable arrangement however, as it would obstruct the ventilation of both offices. In place of this plan therefore he proposed the demolition of the existing structure, and the re-construction of one on the same site with three stories, sufficient for all the wants of the Audit Office without interfering with the convenience of other buildings.

115. Before deciding on this proposal, the Government called upon the Chief Engineer to submit a ground plan of the available space, supposing the present building to be removed, and a plan section and elevation of that which he would propose to erect in its place, with an

estimate of the cost. In obedience to this requisition, Colonel Faber has submitted the present plan and estimate amounting to Rupees 37,350, repeating his opinion of the expediency of removing the existing building which is in too ruinous a state to repair. The plan provides for a three storied building; and he explains that the lower one will be entirely occupied by the Stamp Department; the upper one principally appropriated to the records of the Audit Office; while the third story will contain the Civil Auditor's rooms, and apartments for the writers and officials of the Department. The records being very heavy and wood being expensive, the floor of the first story will be laid on arches; but for a detail of the arrangements on which the building is to be erected, the Government would beg to refer to the accompanying specification, ground plan elevation and section. The plan and estimate were framed by the Deputy Chief Engineer of the Centre Division, in communication with the Civil Auditor; and have the approval of Government.

116. The whole of the projects now newly brought forward for the sanction of the Government of India have thus been reviewed, and the grounds of the recommendation in each case have been detailed; and I am directed, in conclusion to repeat the hope of this Government that these Projects will meet the favorable consideration of the Governor General in Council. The Government have received a report from the Chief Engineer on the subject of the superintendence available under all heads, and they see reason to concur in the opinion expressed by that Officer that sufficient supervision will be secured for the execution of all the works which will be taken in hand during the year. Of Civil Engineers and their Assistants, including also the Civil Engineers and Overseers recently sent out from England, and Executive Officers, the number is 105; there are also 155 Subordinate Officers, viz. 14 Revenue Surveyors and 141 Overseers; making a total strength of 260, a number which, with the subordinate Native classes of maistries, will be found sufficient for the execution of all the works likely to be undertaken.

117. As required by the Government of India in your letter of the 14th June 1855, this report is accompanied by a General sketch map exhibiting at one view all the projects of improvement to canals and roads included in the present Budget, as well as the works of those descriptions already existing. It is hoped that this map, which was

prepared in the Chief Engineer's Office with much care and labor, will be found such as the Government of India wished for; but any instructions that may be communicated respecting the preparation of similar maps in future years will be duly attended to. The Estimates, Plans and Sketches connected with each of the new Projects in Statement No. 1 are also transmitted. All the documents belonging to each Project are marked with the number affixed to that Project in the Statement; and each separate document has a distinguishing letter. To prevent mistake from the other numbers and letters on the papers, those relating to this present Report and Statement are in red ink. A list of all the papers, with corresponding marks, is among the enclosures of this Report. In consequence of the inconvenience and delay caused by the detention at Calcutta of the Plans forwarded with the Budget, I am directed to state the particular request of this Government that in the present year such documents may be returned at the same time with the sanction of the Government of India to the Budget, or as soon after as possible.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) J. D. BOURDILLON,

Secretary to Government.

STATEMENT No. 1.

OF

THE BUDGET

FOR

THE MADRAS PRESIDENCY

FOR THE YEAR 1856-57.

CONTAINING NEW PROJECTS OF ESTIMATED COST EXCEEDING 25,000 RUPEES EACH, RECOMMENDED FOR THE SANCTION OF THE GOVERNMENT OF INDIA.

District	Description of Work.	Estimated Cost.	Estimated time required for completion.	Estimated Expenditure in 1856-57.	Remarks.
1	2	3	4	5	6
Ganjam.	IRRIGATION WORKS.	Rupees		Rupees	
	1 Embanking the Mahanuddee river from its junction with the Kolanda river near Aska to Russelcondah.	64,840	2 years	30,000	Vide letter to Government of India 12th Feb. 1856, No. 190 A.
		64,840	....	30,000	
	COMMUNICATIONS.				
	2 Repairing and improving 34½ miles Trunk road No 6, from Sunthoshapooram to Dendagedda near Itchapore	46,550	2 years	26,550	
	3 Do. do. 39½ miles of Trunk road No. 6, between Chicacole and Sunthoshapooram	37,200	2 do.	27,200	
		83,750	....	53,750	
	Ganjam..	1,48,590	....	83,750	

District.		Description of Work.	Estimated Cost.	Estimated time required for completion	Estimated Expenditure in 1856-57.	Remarks.
1		2	3	4	5	6
		COMMUNICATIONS.	Rupees		Rupees	
Vizagapatam.	4	Construction of Trunk road No. 6, from Chittivalsah to Chicacole 41 miles	93,460	2 years	50,000	
	5	Masonry works on Trunk road No. 6, from Soobaram to Chittivalsah 22½ miles	31,910	2 do.	20,000	
	6	Completing branch road from the ferry at Vizagapatam to Punchadarah and constructing the line up to Poolapurty on Trunk road No. 6, 38½ miles. ..	45,750	2 do.	30,000	
		Vizagapatam..	1,71,120	....	1,00,000	
		IRRIGATION WORKS.				
Rajahmundry.	7	Samulcottah and Toonee canal...	2,34,305	2 years	1,50,000	Entered in the Budget of 1855-56 and recommended to the Hon'ble Court of Directors by Govt. of India, vide Col. Baker's letter 1st June 1855, No. 567, Para. 11.
			2,34,305	....	1,50,000	
		COMMUNICATIONS.				
	8	Junction canal across the Delta from Mogultoor to Cocanada.......	1,22,357	2 years	70,000	Do. do do para 12.
	9	Samulcottah and Cocanada canal	1,17,339	1 do.	1,17,339	Do. do do para 11.
	10	Supplemental estimate for increasing the width of Palicole canal and building a lock at Narsapoor of the standard size and an extra lock and calingulah at Mauroutair..	57,280	1 do	57,280	
			2,96,976	....	2,44,619	
		BUILDINGS.				
	11	Buildings required at Dowlaisweram for the Head Quarters of the Sappers and Miners....	47,028	1 year	47,028	
			47,028	....	47,028	
		Rajahmundry...	5,78,309	....	4,41,647	

District.		Description of Work.	Estimated Cost.	Estimated time required for completion	Estimated Expenditure in 1856-57.	Remarks.
1		2	3	4	5	6
			Rupees		Rupees	
		IRRIGATION WORKS.				
Masulipatam.	12	High level channel from the Boodoomair to Perikeed .... 79,550; Do. from Perikeed to Dendaloor ... 1,34,835	2,14,385	3 years	1,00,000	Entered in the Budget of 1855 56 and recommended to the Hon'ble Court of Directors by Govt. of India, vide Col. Baker's letter 1st June 1855, No. 567, Para. 11.
	13	Do. from Poolairoo near Weyoor to the canal basin at Masulipatam	2,37,107	3 do.	50,000	Do. do do para 15.
	14	Constructing locks and calingulahs at Yalerpad and Chenacapaveram and an embankment to Weyairoo.......	64,820	1 do.	64,820	
			5,16 312	....	2,14,820	
		COMMUNICATIONS.				
	15	Partial repair to the Masulipatam and Hyderabad road from Ebrampatam to Masulipatam	43,250	2 years	30 000	
			43,250	....	30,000	
		Masulipatam...	5,59,562	.. ..	2,44,820	
Guntoor.		IRRIGATION WORKS.				
	16	High level channel from the Toongabuddra near the Kistnah annicut to the Southern part of the Guntoor District to Inganumpada	1,46,787	2 years	50,000	Do. do do para 11.
	17	Constructing a portion of the Kistnah Southern high level channel in continuation from Inganam paud to Inkole.	3,26,100	3 do.		
	18	Opening a channel along the Western bank of the Kistnah from Vathabapooram to tide water at Adavipolliem..	1,39,700	2 do.		
		Guntoor...	6,12,587	....	50,000	

District.		Description of Work.	Estimated Cost.	Estimated time required for completion	Estimated Expenditure in 1856-57	Remarks.
1		2	3	4	5	6
			Rupees		Rupees	
		COMMUNICATIONS.				
Nellore.	19	Constructing a bridge over the Booggairoo river on the road to Cuddapah, via the Dorenal pass........	38,558	2 years	20,000	
	20	Masonry works, consisting of 16 bridges and 65 tunnels on Trunk road No. 6....	84,580	2 do.	50,000	
	21	Masonry works for completing Trunk road No. 7, from the Moodegunda river 3 miles north of Ongole to the Hyderabad frontier at Poondigul on the South Bank of the Kistnah. Two bridges of 1 arch each for the Sunbadoo tank supplying channel and Borga Vunka.... .... Rs. 1,800 Two bridges of 3 arches each across a channel and Coritha Pulley Vaugoo.... Rs. 3,460 Two bridges of 3 do. for the Pulavanany Pullem Vaugoo and Yedtomungala Vaugoo.... .... 4,940 A bridge of 7 arches for the Bowanassy river........ ... 6,590 A do. of 9 do. for the Erotan Vaugoo.... 8,410 A do of 1 do. for the Nulla Vaugoo .. .. 2,740 A do. of 7 do. for the Yerra Vaugoo. ... 9,920 A do of 5 do. for the Nagoolaroo river.. 8,300 A do. of 19 do. for the Goondlacumma do. 36,280 For 25 Tunnels of various sizes.... 6,994	89,434	2 years	60,000	
		Nellore..	2,12,572	....	1,30,000	

District.		Description of Work.	Estimated Cost.	Estimated time required for completion	Estimated Expenditure in 1856-57.	Remarks.
1		2	3	4	5	6
Cuddapah.		COMMUNICATIONS.	Rupees		Rupees	
	22—1	Road between Cuddapah & Madras as far as Poonamallee, Estimate, of Rs. 1,92,221. (Portion in the Cuddapah District)......	1,28,237	2 years	70,000	Recommended by the Government of India to the Honorable Court of Directors vide Colonel Baker's letter of 14th Dec. 1855. Portion for North Arcot. Rs. 53,018; Do. for Chingleput ... 10,966; Do. for Cuddapah ....1,28,237; Total..1,92,221
		Completing the Trunk road No. 11 from Chittoor to Cuddapah, Estimate of Rs. 1,28,753............				
	23—1	Six bridges of from 1 to 9 arches and fourteen tunnels between Vulloor and Kulcudda. (Portion of the above Estimate)....	39,142	2 do.	50,000	The remaining portion Rs. 33,869 is taken in North Arcot.
	23—2	Eight bridges of from 1 to 11 arches and thirty tunnels between Kulcudda and Goolcherroo. (Portion of the above Estimate.)....	55,742			
	24	Completing the Cuddapah and Bellary frontier road	78,710	2 do.	30,000	
		Cuddapah...	3,01,831	....	1,50,000	
Bellary.		COMMUNICATIONS.				
	25	Completing the bridges and drains on the road from Bellary to Humpsagur...	59,250	2 years	39,500	
	26	Earthwork & minor bridges of the portion of the Bellary and Cuddapah road from Royalcherroo to Ghooty......	31,100	2 do.	21,100	
			90,350	....	60,600	
		BUILDINGS.				
	27	Construction of a new Hospital for the European Infantry Regiment......... 79,930; Construction of buildings in connection with the above Hospital.. 2,400	82,330	2 years	50,000	
			82,330	....	50,000	
		Bellary..	1,72,680	....	1,10,600	

District.		Description of Work.	Estimated Cost.	Estimated time required for completion	Estimated Expenditure in 1856-57.	Remarks.
1		2	3	4	5	6
Chingleput.		COMMUNICATIONS.	Rupees		Rupees	
	22 — 2	Road between Cuddapah & Madras as far as Poonamallee, Estimate of Rs. 1,92,221. (Portion in the Chingleput District.)....	10,966	1 year	10,966	Recommended to the Honorable Court of Directors by the Govt. of India, vide Col. Baker's letter of 14th Dec. 1855. The other portions of this estimate are taken as specified opposite to No. 22 — 1
	28	Road across the Puningarde backwater on the northern Trunk road....	33,023	1 do	33,023	
	29 — 1	For increased width of metalling on Trunk road No 1 Estimate for Rupees 55,690. (Portion in the Chingleput District)......	41,251	1 do	41,251	The remaining portion Rs. 14,4[illegible] is taken in No[illegible]h Arcot.
	30	Constructing a bridge across the Coeum river near Dacumbode on the road from Madras to Cuddapah.	26,860	18 months	15,000	
	31	Road from the Causeway in the Palaur river near Chingleput to Tetry through the town of Ootramalloor.	41,130	2 years	10,000	
		Chingleput..	1,53,230	....	1,10,240	
North Arcot.		IRRIGATION WORKS				
	32	Enlarging the channels from the Poinay river and constructing other subsidiary works connected with the Poinay annicut project including compensation for lands to be taken up	1,53,283	2 years		
			1,53,283	....	....	
		COMMUNICATIONS.				
	22 — 3	Road between Cuddapah & Madras as far as Poonamallee, Estimate for Rs 1,92,221. (Portion in the North Arcot District.)..	53,018	1 year	53,018	Recommended to the Honorable Court of Directors by the Government of India, Vide Colonel Baker's letter of 14th Dec.1855. The other portions of this estimate are taken as specified opposite to No. 22 — 1

District.		Description of Work.	Estimated Cost.	Estimated time required for completion	Estimated Expenditure in 1856-57.	Remarks.
1		2	3	4	5	6
North Arcot. (*Concluded.*)		COMMUNICATIONS. Completing the Trunk road No. 11 from Chittoor to Cuddapah, estimate of Rs. 1,28,753.	Rupees		Rupees	
	23—3	Constructing a bridge of 10 arches of 30 feet span across the Chittoor river. (Portion of the above estimate.)	12,482	2 years	4,000	The other portion Rupees 94,884, is taken in Cuddapah.
	23—4	Constructing a bridge of 20 arches of 30 feet span across the Calavagoontah river. (Portion of the above estimate.)	21,387	2½ do	7,000	
	29—2	Increasing the width of metalling on Trunk road No. 1, from the 53d½ to the 71st mile, Estimate for Rs. 55,690........	14,439	1 do	14,439	The remaining portion, Rs. 41,251, is taken in Chingleput.
	33	Constructing a 2nd Class road No. 5 from the Cheyaur river to the Palaur annicut......	38,600	2 do	15,000	
	34	Building a bridge of 53 arches across the Palaur in connection with the annicut now under construction......	94,400	2 do	50,000	
			2,34,326	....	1,43,457	
		North Arcot..	3,87,609	....	1,43,457	
South Arcot.		COMMUNICATIONS.				
		Bridges on Trunk road No. 8 from Madras to Trichinopoly. ..				
	35	Bridge over the Pennar.. ..	1,06,333	2 years		
	36	Do. do. Vellaur....	37,263	2 do	18,631	
		Bridges over Trunk road No. 9 by a branch road of the above to Combaconum.				
	37	Bridge over the Pennar. ..	46,901	2 do	23,450	
	38	Do. do. Geddalum...	25,869	2 do	12,934	

District.		Description of Work.	Estimated Cost.	Estimated time required for completion	Estimated Expenditure in 1856-57.	Remarks.
1		2	3	4	5	6
South Arcot, (*Concluded*)		COMMUNICATIONS.	Rupees		Rupees	
	39	Additional metalling between Oolundoorpett and Samiaveram on Trunk road No. 8 between Madras and Trichinopoly.	37,313	1 year	37,313	
	40	Bridge over the Vellaur near Bhowangherry	35,020	2 do	17,510	
		South Arcot..	2,88,699	....	1,09,838	
Trichinopoly.		COMMUNICATIONS.				
	41	Road from Trichinopoly to Salem boundary	50,000	2 years	30,000	
	42	Road from do. through Arialoor and Woodiarpolliam to its junction with the Trunk road No. 9	43,600	2 do	25,000	
		Tichinopoly..	93,600	....	55,000	
Madura.		COMMUNICATIONS.				
	43	Constructing a bridge of 25 arches across the Vigay river at Madura on the high road No. 4 from Madras to Travancore. ..	42,200	2 years	21,100	
	44	Repairing and improving road No. 17 from Nella cotta to Pulkanooth.. ..	25,560	1 do	25,560	
		Madura. ..	67,760	....	46,660	
Tinnevelly.		IRRIGATION WORKS.				
	45	Constructing a new annicut at Streevigoontum across the Tambrapoorny with channels to Trichendoor.	3,85,000	3 years	....	
			3,85,000	....	....	
		COMMUNICATIONS.				
	46	Constructing a new line of road from Palamcottah to the Port of Tuticorin.....	67,361	1½ do	44,000	
			67,361	....	44,000	
		Tinnevelly..	4,52,361	....	44,000	

District.		Description of Work.	Estimated Cost.	Estimated time required for completion	Estimated Expenditure in 1856 57.	Remarks.
1		2	3	4	5	6
Coimbatore.		IRRIGATION WORKS.	Rupees		Rupees	
	47	Repairing, improving and extending the Calingaroyen channel	64,898	2 years	40,000	
			64,898	....	40,000	
		COMMUNICATIONS.				
	48	Building a bridge over the Ambravutty river on the main road from Trichinopoly to the Neilgherry Hills and the Western Coast.	63,830	2 do	28,000	
			63,830	....	28,000	
		Coimbatore ..	1,28,728	....	68,000	
Canara.		COMMUNICATIONS.				
	49	For bridges on the new Guersuppah Ghaut and road from its head to the junction with the Seddahpoor and Talgoopah lines near Kodkunny	25,994	2 years	16,000	
	50	Opening a canal from the Tuddry river to Coomptah	36,021	1 do	36,021	
		Canara ..	62,015	......	52,021	
Madras.		BUILDINGS.				
	51	Additions and alterations to the Sea Custom House .. .. 50,340 Improving the external accommodation of the Sea Custom House for the landing and shipping of goods and their conveyance to and from the Custom House........ 19,700	70,040	1 year	70,040	
	52	Rebuilding the Civil Audit Office. .. .	37,350	1 do	37,350	
		Madras ..	1,07,390	....	1,07,390	

District.	Description of Work.	Estimated Cost.	Estimated time required for completion	Estimated Expenditure in 1856-57.	Remarks.
1	2	3	4	5	6
East Coast Canal.	COMMUNICATIONS	Rupees		Rupees	
	53 Extension of the East Coast canal from Doogarazepatam to the Rampairoo river commonly called the Kistnapatam backwater..	1,39,665	2 years	75,000	Entered in the Budget of 1855-56, and recommended by the Govt. of India to the Honorable Court of Directors, vide Col Baker's letter of 1st June 1855, No. 567, para 11.
	54 Improving the water communication between Madras and Ammun Covil..	72,800	2 do	40,000	
	55 Extending the East Coast canal from the Palaur river to the Pondicherry frontier.	3,75,000	3 do		
	East Coast Canal..	5,87,465	....	1,15,000	
Mysore.	BUILDINGS.				
	56 Building two blocks of married men's Quarters in the Dragoon Barracks at Bangalore.	90,820	2 years	50,000	
	57 Improving the Dragoon Barracks	1,55,600			
	Mysore...	2,46,420	....	50,000	
Hyd. Sub. Force, Secunderabad.	BUILDINGS.				The total amount sanctioned by the Govt. of India for the Secunderabad Barracks is Rupees 11,59,077, of which Rs. 4,77,923 is entered in the Budget list No. 2, and the remainder Rupees 6,81,154 in this List. Of this latter sum Rs. 2,00,000 has already been authorized for expenditure in the current official year: vide letter from Govt. of India 23d Nov. 1855, No. 2692.
	58 Auxiliary works required for the accommodation of a Regiment of European Infantry at Trimulgherry near Secunderabad in connection with the new Barracks....	6,81,154	1 year	4,81,154	
	Secunderabad..	6,81,154	....	4,81,154	

ABSTRACT.

	Estimated Cost.	Estimated Expenditure in 1856-57.
Irrigation Works..........	20,31,225	4,84,820
Communications...........	28,18,135	14,73,185
Buildings..............	11,64,322	7,35,572
Total......	60,13,682	26,93,577

J. D. BOURDILLON,
Secretary to Government.

STATEME

OF

THE BU

FOR

THE MADRAS

FOR THE YE

EXPENDITURE PROPOSED TO BE MADE UPON NEW WORKS,

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date
1		2	3	4
		IRRIGATION WORKS.		
	1	Constructing three head sluices across the Poorshootapoorum, Byree and Waddada channels in the Waddada talook....	Govt.	Feb. 29, 1856.
	2	Constructing three head sluices across the Nagricuttum, Doosey and Pottalagum channels in the Waddada and Pottalagum talooks	do.	do. do.
	3	Embanking the Lohurkundee river from Kotunda above Russelconda to its junction with the Inahmundee......	do.	do. 23, do.
		COMMUNICATIONS.		
	4	Construction of Trunk road No. 6, between Dendagedda and Hoomma causeway.... ..	Govt.	Nov. 3, 1853.
		Completing road between Itchapore and Hoomma	do.	May 26, 1855.
Ganjam.	5	Russelconda and Kunjoroo road	Govt. of Madras.	Nov. 15, 1853.
	6	Road from Palcondah to Chintadah with branches from Chintadah to Calingapatam and Chicacole.	Govt. of India.	July 28, 1854.
	7	Do. from Poondy towards Purla Kimedy.. ..	do.	do. do.
	8	Do. from Maripam towards Purla Kimedy.. ..	do.	do. do.
		BUILDINGS.		
	9	Building a Guard Room at Chutterpoor.... ..	Govt.	Aug. 23, 1855.
	10	Constructing two Sea Custom Houses at Calingapatam and Gopaulpoor at Rs. 2,673½ each.. .	do.	Nov. 30, do.
	11	Constructing three do. at Poondy, Soonapoor and Ganjam at Rs. 1,508½ each....	do.	do. do.
	12	Additional record rooms to the Collector's Cutcherry at Chutterpoor.....	do.	Feb. 5, 1856.
		Total....Ganjam....	....	....

NT No. 2.

DGET

PRESIDENCY

AR 1856-57.

OTHER THAN THOSE INCLUDED IN STATEMENT No. 1.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
12,960	0	0	0	0	12,960	0	
10,230	0	0	0	0	10,230	0	
21,850	0	0	0	0	15,000	6,850	
45,040	0	0	0	0	38,190	6,850	
39,567 12,169	51,736	37,000	10,000	47,000	4,736	0	
28,700	28,700	14,250	3,250	17,500	11,200	0	
41,452	41,452	19,322	12,000	31,322	10,130	0	
20,675	20,675	6,696	10,000	16,696	3,979	0	
25,259	25,259	6,485	4,000	10,485	14,774	0	
1,67,822	1,67,822	83,753	39,250	1,23,003	44,819	0	
781	0	0	0	0	781	0	
6,347	0	0	0	0	5,347	0	
4,525	0	0	0	0	4,525	0	
815	0	0	0	0	815	0	
11,468	0	0	0	0	11,468	0	
2,24,330	1,67,822	83,753	39,250	1,23,003	94,477	6,850	

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
		COMMUNICATIONS.		
Vizagapatam.	13	Bridges, &c. on Paloondah and Cheepurpully road..	Govt.	Feb. 24, 1855.
	14	Do. on Palcondah Parvetteypore and Bobilly road.	do.	do. do.
		Superintendence for both roads..	do.	do. do.
	15	Road work to Trunk road No. 6, from Soobarum to Chittivalsah (portion of Estimate for Rs. 90,973)..	do.	April 10, 1854.
	16	Bridge on the approach to the Bimlipatam river on Trunk road No 6.	do.	Nov. 28, do.
	17	For clearing the Madgohe ghaut....	do.	July 10 & 18, 1855. .....
	18	Improving the Road from Ankapilly on the great Northern Road No. 6, to the ferry landing place opposite Vizagapatam....	do.	Jan. 25, 1856.
		BUILDINGS.		
	19	Fourteen Police Cutcherries in the District	Govt.	Nov. 14, 1854.
	20	Custom House at the Port of Bimlipatam	do.	Sept. 9, do. July 5, 1855. Sept. 22, do.
	21	Barracks, Hospital and Powder Magazine for Sibbundies at Nursipatam....	do.	Jan. 25, 1856.
		Total.. Vizagapatam..	.	....
		IRRIGATION WORKS.		
Rajahmundry.	22	Works in the Eastern Delta	Govt. of India.	Feb. 1, 1852.
	23	Completing the Eastern branch channels, ...	Govt.	June 17, 1854.
	24	Widening and straightening the Apparow channel..	do.	do. do.
	25	Widening the Samulcottah channel....	Govt. of India.	Mar. 21, 1854.
	26	Works of irrigation and navigation in the central Delta of Rajahmundry	do.	June 1, 1855.
		Opening minor channels of irrigation and drainage in the Delta of Rajahmundry.		
	27	Irrigation channels in Tanookoo and Mogultoor....	Govt.	Nov. 30, do.
	28	Do. do. in Mogultoor.....	do.	do. do.
	29	Embankment in do.	do.	do. do.
	30	Drainage channels in do.	do.	do. do.
	31	Irrigation channels and a small aqueduct in Biccavole and Cocanada....	do.	do. do.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856 57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	
20,743 15,560 5,175	41,478	20,000	10,000	30,000	11,478	0	
15,710	15,710	10,000	4,000	14,000	1,710	0	
5,165	0	0	0	0	5,165	0	
3,000	0	0	0	0	3,000	0	
10,078	0	0	0	0	10,078	0	
75,431	57,188	30,000	14,000	44,000	31,431	0	
16 814	16,814	0	8,500	8,500	8,314	0	
2,986 625 696	4,307	1,500	500	2,000	2,307	0	
4,940	0	0	0	0	4,940	0	
26,061	21,121	1,500	9,000	10,500	15,561	0	
1,01,492	78,309	31,500	23,000	54,500	46,992	0	
1,77,742 1,11,903	289645	2,15,000	16,000	2,31,000	58,645	0	
45,021	45,021	20,000	12,000	32,000	13,021	0	
48,227	48,227	25,000	12,000	37,000	11,227	0	
3,15,932	2,00,000	73,000	50,000	1,23,000	77,000	1,15,932	
3,000 4,140 1,147 2,805 9,908	0	0	0	0	21,000	0	

District.		Description of Work	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
Rajahmundry, (Concluded.)		IRRIGATION WORKS, (*Continued.*)		
	32	Excavating a channel from the head of the Samulcottah channel to the Godapilly quarry.. ..	Govt.	Feb. 5, 1856.
	33	Excavating channels to drain the land irrigated by the Mundapett channel..	do.	Feb 5, 1856.
	34	Do. a drainage channel..	do.	do. do.
	35	Do. two branch channels for the proper distribution of the water of the Cocanada channel.. ..	do.	do. do.
		COMMUNICATIONS.		
	36	Steam Dredge for deepening Coringa bar and working the same for one year...	Supreme Govt.	Jan. 26, 1855.
	37	Improvement of Coringa Harbour..	do.	June 1, do.
	38	Do. of Cocanada Harbour..	do.	do. do.
	39	For constructing ferry boats at the Calingapatam salt river and at Camany.....	Govt.	Oct. 12, do.
	40	Completing the towing path of the Nagarum aqueduct in the Rallee talook....	do.	Dec. 20, do.
	41	Making a road from Juddungee to Yailasvarum....	do.	Feb. 5, 1856.
		BUILDINGS.		
	42	Erecting Talook Cutcherries at Nursapore, Amla poor and Cota Ramchendrapooram..	Govt.	Mar. 8, 1856.
	43	Constructing an obelisk at the entrance of the Nursapore river..	do.	Feb. 23, do.
		Total..Rajahmundry...	....	....
Masulipatam.		IRRIGATION WORKS.		
	44	Channel of Irrigation and Navigation from near Weyieroo to Mopedavy....	H. C. D. & Govt.	Jan. 8, 1851. April 7, 1854.
	45	Canal of Irrigation and Navigation from the Weyairoo near the Godavery annicut to Ellore.....	Govt. of India.	Jan. 26, 1855.
	46	Deepening, widening and straightening the Boodemair channel from Mootialumpaud to Casarapilly.	Govt.	Nov. 30, do.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
4,826	} 0	0	0	0	11,850	0	
3,623							
2,300							
1,101							
7,31,675	5,82,893	3,33,000	90,000	4,23,000	1,92,743	1,15,932	
36,000	36,000	0	25,000	25,000	11,000	0	
62,839	62,839	} 28,000	50,000	78,000	50,000	19,478	
84,639	84,639						
937	0	0	0	0	937	0	
23,360	0	0	0	0	23,360	0	
17,200	0	0	0	0	10,000	7,200	
2,24,975	1,83,478	28,000	75,000	1,03,000	95,297	26,678	
11,000	0	0	0	0	11,000	0	
2,340	0	0	0	0	2,340	0	
13,340	0	0	0	0	13,340	0	
9,69,990	7,66,371	3,61,000	1,65,000	5,26,000	3,01,380	1,42,610	
} 1,49,797	1,49,797	11,452	16,000	27,452	1,22,345	0	This is one of the unfinished subsidiary works connected with the Kistnah annicut project entered in the Budget of 1855-56.
2,87,644	2,20,000	90,000	60,000	1,50,000	70,000	67,644	
9,360	0	0	0	0	9,360	0	
4,46,801	3,69,797	1,01,452	76,000	1,77,452	2,01,705	67,644	

District.		Description of Work.	Estimates Sanctioned. By Whom.	Estimates Sanctioned. Date.
1		2	3	4
Masulipatam, (*Concluded.*)		COMMUNICATIONS.		
	47	Road from Ibrahimpatam to the Nizam's Frontier..	H. C. D.	Apl. 27, 1852.
	48	Improving the Chinnapooram canal	Govt.	July 23, 1853. May 16, 1855.
	49	Bridge over the annicut across the Kistnah river at Bezoarah.......	Govt. of India.	June 1, 1855.
	50	Opening the road from Ellore to Chintalapoody..	Govt.	Jan. 25, 1856.
	51	Improving the river and port of Masulipatam......	do.	Feb 20, 1856.
		BUILDINGS.		
	52	Travellers' bungalow at Bezoarah....	do.	Dec. 19, 1854.
	53	Constructing a Library room at Bezoarah..	do.	July 4, 1855.
	54	Alterations and improvements to the District Moonsiff's Court House at Masulipatam.....	do.	Sept. 24, 1855.
		Total ..Masulipatam..	....	....
Guntoor.		IRRIGATION WORKS.		
	55	Calingulah to the Peddapurney tank... ...	Govt.	July 1, 1852.
	56	Sluices to the Kytapully and Doolatippa tanks.	do.	do. do.
	57	Sluice to Mungalagherry black tank....	do.	do. do.
	58	Sluice to Kotany tank	do.	July 1, do.
	59	Widening and deepening the Toongabudra channel and cutting a new channel in continuation..	do.	Feb. 20, 1854.
	60	Flood bank for Kadavacoodara....	do.	Jan. 15, 1855.
		COMMUNICATIONS.		
	61	Improving the District road from Guntoor to Munchalla....	Govt.	Feb. 8, 1853.
	62	Tunnels to road leading from Guntoor towards Cumbum........	do.	Apl. 19, do. Jan. 3, 1855.
	63	Bridges to road from Guntoor to Munchalla..	do.	Apl. 6, 1854. Mar. 2, 1855.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
55,833	55,833	2,200	9,000	11,200	44,633	0	
8,517	8,517	5,000	1,500	6,500	2,017	0	
1,99,931	1,00,000	20,500	80,000	1,00,500	50,000	49,431	
24,630	0	0	0	0	24,630	0	
14,520	0	0	0	0	14,520	0	
3,03,431	1,64,350	27,700	90,500	1,18,200	1,35,800	49,431	
1,958	1,958	0	0	0	1,958	0	
1,473	0	0	0	0	1,473	0	
553	0	0	0	0	553	0	
3,984	1,958	0	0	0	3,984	0	
7,54,216	5,36,105	1,29,152	1,66,500	2,95,652	3,41,489	1,17,075	
528	528	0	0	0	528	0	
571	571	0	0	0	571	0	
169	169	0	0	0	169	0	
193	193	0	0	0	193	0	
2,20,417	2,20,417	94,630	25,000	1,19,630	1,00,787	0	This is one of the unfinished subsidiary works connected with the portion of the Kistnah annicut project entered in the Budget of 1855 56 at Rs. 6,81,630.
704	704	0	0	0	704	0	
2,22,582	2,22,582	94,630	25,000	1,19,630	1,02,952	0	
8,622	8,622	4,968	1,500	6,468	2,154	0	
1,400	1,400	1.000	200	1,200	200	0	
6,074	6,074	1,729	1,500	3,229	2,846	0	

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
Guntoor, (Concluded.)		COMMUNICATIONS, (Continued.)		
	64	Construction of Trunk road No. 7 from Cummullapaud to the Hyderabad frontier, estimate for Rupees 1,34,021	Govt.	June 5, 1854.
	65	Changing the line of the northern road from Seetanagrum to a point south of Tadapully Hill and for repairing the road within this District......... ..	do.	Dec. 12, 1855.
	66	Building a large Tug Boat for the Kistnah river....	do.	Jan. 31, 1856.
	67	Do. eighty Ferry Boats; forty large and forty small for the Kistnah channels	do.	Feb. 23, do.
		BUILDINGS.		
	68	Building Moonsiff's Court House at Karrumpoody	Govt.	May 19, 1854.
	69	Do. do. do. at Cauga	do.	do. do.
	70	Do. do. do. at Baupetlah	do.	do. do.
		Total..Guntoor .	....	....
Nellore.		IRRIGATION WORKS.		
	71	Head sluice to Jaffer Saib's channel......	Govt.	Jan. 25, 1856.
	72	Do. to Vagoor channel......	do.	do. do.
	73	Do. to Survapully river channel.....	do.	do. do.
	74	Do. to Doovoor tank supply channel	do.	do. do.
	75	Calingulahs to Edoor Codoor tank......	do.	do. do.
	76	Annicut across the Appasamoodrum tank and new cut....	do.	do. do.
	77	Constructing a head sluice and escape Calingulah to the Pullairoo channel.....	do.	do. do.
	78	Cutting a new channel from the Gollacundoocoor Lodoom to Nellore and constructing a Calingulah across it	do.	do. do.
	79	Cutting a channel from the Vencatagherry river to the Chennoor tank...	do.	Feb. 29, do.
	80	Completing a part of the Pennair river embankment.	do.	do. 23, do.
	81	Constructing an anniout across the Mamoody calvah.	do.	do. 29, do.
	82	Do. an aqueduct and bridge across an old course of the Pennair......	do.	do. 29, do.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
88,708	41,687	15,401	10,746	26,147	53,800	8,761	The other portion viz. Rs. 45,313 is taken in Nellore.
24,990	0	0	0	0	24,990	0	
10,000	0	0	0	0	10,000	0	
14,000	0	0	0	0	5,000	9,000	
1,53,794	57,783	23,098	13,946	37,044	98,989	17,761	
1,410	1,410	68	0	68	1,342	0	
1,532	1,532	0	0	0	1,532	0	
1,630	1,630	190	0	190	1,440	0	
4,572	4,572	258	0	258	4,314	0	
3,80,948	2,84,037	1,17,986	38,946	1,56,932	2,06,255	17,761	
3,364	0	0	0	0	3,364	0	
2,063 2,063 2,063	0	0	0	0	6,189	0	
1,592	0	0	0	0	1,592	0	
655	0	0	0	0	655	0	
2,256	0	0	0	0	2,256	0	
9,868	0	0	0	0	9,868	0	
13,910	0	0	0	0	13,910	0	
8,050	0	0	0	0	8,050	0	
5,150	0	0	0	0	5,150	0	
6,130	0	0	0	0	6,130	0	
57,164	0	0	0	0	57,164	0	

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
Nellore, (Concluded.)		COMMUNICATIONS.		
	83	Trunk road No. 6, from Cavoor to Moodegunda..	Govt.	May 2, 1854.
	84	Trunk road No. 7, from Moodegunda to Cummalpaud (portion of Estimate for Rupees 1,34,021)	do.	June 5, do.
	85	Improving water communication between Kistnapatam and Goodoor......	do.	Dec. 14, do.
	86	Constructing a bridge across the Atmacoor tank channel....	do.	Sep 24, 1855.
	87	Do. a bridge across the Muldavy stream...	do.	do. do.
	88	Improving road from Nellore to Ramapatam .. .	do.	Oct. 25, do.
	89	Constructing a bridge across the Kundlairoo river.	do.	Nov. 30, do.
	90	Completing the communication partly by the Rampairoo and partly by road between Kistnapatam and Goodoor....	do.	Mar. 8, 1856.
	91	Completing the road from Kistnapatam to Nellore.	do.	do. do.
		BUILDINGS.		
	92	Removing old Jail and building on its site a new one.	Govt.	Feb. 24, 1855.
	93	Constructing a Prisoner's room and shed for peons to the Davaroypully Talook Cutcherry .	do.	June 27, do.
	94	Constructing a Prisoner's room and forming a Record room for Division Cutcherries... ..	do.	Sep. 24, do.
	95	Constructing a new Talook Cutcherry at Sungum.	do.	Jan. 25, 1856.
	96	Constructing a new Record room and other improvements to the Hoozoor Cutcherry at Nellore	do.	Feb. 29, do.
		Total..Nellore .	....	....
Cuddapah.		IRRIGATION WORKS.		
	97	Excavating a new entrance to the Goorbuncherroo river channel	Govt.	June 13, 1855
	98	Building a sluice and Calingulah for the better distribution of the water..	do.	do. do.
	99	Building 2 aqueducts across the surplus stream of the Paulacherroo tank..	do.	do. do.
	100	Building an annicut across the surplus channel of the Dhoor tank..	do.	do. do.
	101	Building a dividing sluice in the Poodraveram tank channel..	do.	do. do.
	102	Formation of a new head with a head sluice to the Enamala Chintala channel.... ..	do.	Nov. 30, 1855

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1,17,113	97,000	38,175	17,000	55,175	61,938	0	
45,313	45,313	0	17,000	17,000	28,313	0	The other portion, viz. Rs. 88,708 is taken in Guntoor.
14,000	14,000	0	0	0	14,000	0	
3,959	0	0	0	0	3,959	0	
2,268	0	0	0	0	2,268	0	
8,000	8,000	1,000	2,000	3,000	5,000	0	
13,060	0	0	0	0	8,060	,5,000	
17,790	0	0	0	0	17,790	0	
16,650	0	0	0	0	16,650	0	
2,38,163	1,64,313	39,175	36,000	75,175	1,57,978	5,000	
6,400	6,400	0	0	0	6,400	0	
240	0	0	0	0	210	0	
456	0	0	0	0	456	0	
3,000	0	0	0	0	3,000	0	
3,780	0	0	0	0	3,780	0	
13,876	6,400	0	0	0	13,876	0	
3,09,193	1,70,713	39,175	36,000	75,175	2,29,018	5,000	
1,911	0	0	0	0	1,911	0	
50	0	0	0	0	50	0	
270	0	0	0	0	270	0	
72	0	0	0	0	72	0	
37	0	0	0	0	37	0	
4,720	0	0	0	0	4,720	0	
7,060	0	0	0	0	7,060	0	

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
Cuddapah, (*Concluded.*)		COMMUNICATIONS.		
	103	Removing chief obstacles on Trunk road No. 12, between Pellan and Coodairy	Govt.	Dec. 6, 1852.
	104	Constructing Trunk road No. 11, between Culleor and Kulcudda 25 miles..	do.	Apl. 27, 1854.
	105	Repairing, metalling and building tunnels on the portion of the road from Cuddapah to Kurnool	do.	Sep. 24, 1855.
	106	Constructing a tunnel and 3 drains near the bridge of Caroor on Trunk road No. 6 . .	do.	do. do.
	107	Constructing Trunk road No. 11, from Kulcudda to the foot of the Goolcherroo ghaut 31 miles...	do.	Oct. 30, 1854.
	108	Portion of supplemental Estimate for the Chennoor and Kistnapatam road..	Govt. of India.	Jan. 26, 1855.
	109	Constructing a bridge across the Nundialum Vagoo on the Podatoor extension line.... ..	Govt.	Nov. 30, 1855.
	110	Completing Booga and Ralla bridges. 18,168	do.	Jan 30, 1856.
		Deduct amount from pagoda funds. 4,97		Feb. 28, 1856.
		BUILDINGS.		
	111	For 4 windows and certain additional work to the talook Cutcherry at Budwail.. ..	do.	June 27, 1855.
		Total..Cuddapah..	....	....
Bellary.		IRRIGATION WORKS.		
	112	Re-constructing annicut across Chinna Huggry river at Bacheegoondanahully.. ..	Govt.	Dec. 12, 1855.
	113	Constructing head sluice of Cunnakul channel..	do.	Feb 8, 1856.
	114	Completion of Cunnakul channel. ..	do.	do. do.
	115	General repairs of Cunnakul tank. ..	do.	do. do.
		COMMUNICATIONS.		
	116	Constructing portion of Trunk road No. 12, between Bellary and Coodairy.. ..	Govt.	May 6, 1854.
	117	Constructing bridges on the Pennair river on Trunk road No. 12..	do.	Dec. 9, do.
		Completing the following roads.		
	118	Bellary to Madaveram..	Govt. of India.	Jan, 26, 1855.
	119	Auloor to Codamoor....		
	120	Kurnool to Ghooty.		
	121	Ghooty to Adony..		
	122	Ghooty to Bangalore as far as boundary. ...		
		Total 289 miles..		

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
3,154	3,154	0	1,000	1,000	2,154	0	
30,698	30,698	8,719	10,000	18,719	11,979	0	
1,478	0	0	0	0	1,478	0	
210	0	0	0	0	210	0	
56,697	56,697	16,741	10,000	26,741	29,956	0	
39,000	39,000	21,000	8,000	29,000	10,000	0	
3,240	0	0	0	0	3,240	0	
} 13,194	0	0	0	0	13,194	0	
1,47,671	1,29,649	46,460	29,000	75,460	72,211	0	
170	0	0	0	0	170	0	
170	0	0	0	0	170	0	
1,54,901	1,29,549	46,460	29,000	75,460	79,441	0	
11,100	11,100	0	0	0	11,100	0	
4,270	0	0	0	0	4,270	0	
4,620	0	0	0	0	4,620	0	
4,700	0	0	0	0	4,700	0	
24,690	11,100	0	0	0	24,690	0	
67,051	40,000	12,000	8,000	20,000	17,051	20,000	
35,280	20,000	1,500	4,000	5,500	15,280	14,500	
1,07,520	1,07,520	39,819	28,800	68,619	38,901	0	

District.		Description of Work.	Estimates Sanctioned. By whom.	Date.
1		2	3	4
Bellary, (Concluded.)		COMMUNICATIONS, (Continued.)		
	123	Communications between Ramandroog and Bellary, Hosspett and Nunglapoor..... ..	Govt.	Feb. 24, 1855.
	124	Bridging the Dharwar road for the first two stages out of Bellary..	do.	do. do.
	125	Forming road from Oojunny to Humpsaugor in the district of Bellary, and forming a portion of the Military road from Chittledroog in the Mysore territory through Bellary to Kulladghee in the Bombay territory..	do.	July 12, 1855.
	126	Extending the Bellary and Hosspett road to Hoosoor ferry on the Toombudra	do.	Mar. 8, 1856.
	127	Bridging the road from Tornagul to the foot of the Ramandroog Hill....	do.	do. do.
		BUILDINGS.		
	128	Goolliem talook Cutcherry.	Govt.	Mar. 11, 1851. April 19, 1852
	129	Erecting exterior verandahs to the 9 ranges of the European Infantry barracks.... .. .	do.	Oct. 24, 1854.
	130	Travellers' bungalow at Guarladinna, Pandee and Paipully	do.	Jan. 9, 1855.
	131	Moonsiff's Court house at Taudmurry	do.	do 25, do.
	132	Enlarging the Talook Cutcherry at Hoovinhudgally..	do.	June 21, do.
	133	Erecting a detached Hospital for the Native followers of mounted Corps, ...	do.	Aug. 16, do.
	134	Constructing aqueducts for conducting water from the new large Bowry to several Wash houses attached to the new European barracks in Bellary.	do	Sep. 4. do.
		Total..Bellary..	....	. . ..
Kurnool.		COMMUNICATIONS Completing the following roads.		
	135	Kurnool to Nundy Cunnama...... ..	Govt. of India.	Jan. 26, 1855.
	136	do. to Codamoor....		
	137	do. to Ghooty.. ... ... Total 120 miles...		
	138	Bridge across the river Hindree at Kurnool. ..	do.	June 1, do.
	139	Bridge over the Koondaur river on the road from Kurnool to Cummum...	Govt.	Feb. 24, do.
	140	Bridging the road from Kurnool to Bellary Frontier near Codamoor....	do.	do. 23, 1856.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
13,986	13,986	9,300	2,190	11,490	2,496	0	
39,924	39,924	8,930	11,000	19,930	19,994	0	
11,456	0	0	0	0	11,456	0	
19,430	0	0	0	0	19,430	0	
24,380	0	0	0	0	14,500	9,880	
3,09,027	2,21,430	71,549	53,990	1,25,539	1,39,108	44,380	
} 3,503	3,503	941	500	1,441	2,062	0	
44,270	25,000	34,000	3,000	37,000	7,270	0	
6,005	6,005	0	4,000	4,000	2,005	0	
1,611	1,611	350	800	1,150	461	0	
1,059	0	0	0	0	1,059	0	
1,196	0	0	0	0	1,196	0	
3,060	0	0	0	0	3,060	0	
60,704	36,119	35,291	8,300	43,591	17,113	0	
3,94,421	2,68,649	1,06,840	62,290	1,69,130	1,80,911	44,380	
1,07,160	1,07,160	43,500	20,000	63,500	43,660	0	
30,743	20,000	1,000	9,000	10,000	10,743	10,000	
13,263	13,263	0	3,263	3,263	10,000	0	
22,110	0	0	0	0	22,110	0	
1,73,276	1,40,423	44,500	32,263	76,763	86,513	10,000	

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
Kurnool, (Concld.)		BUILDINGS.		
	141	Paniem Talook Cutcherry	do.	Dec. 19, 1854.
		Total..Kurnool..	....	....
Chingleput.		IRRIGATION WORKS.		
	142	Palar annicut project, Estimate of Rs. 8,66,144, (Portion in the Chingleput District)	H. C. D.	Nov. 8, 1854.
	143	For re-constructing the Mailpaudoo ruined tank	Govt.	Sep. 21, 1855.
	144	For constructing a calingulah to the Cooroovembadoo tank....	do.	do. do.
		COMMUNICATIONS.		
	145	For additional width of metalling on Trunk road No. 6 between Yeroocanjairy and the Corteliar river....	Govt.	July 28, do.
	146	For additional width of metalling on Trunk road No. 8 between Pallaveram and Chingleput.. ..	do.	do. do.
	147	For metalling the road from Trivallore to the Corteliar river....	do.	Aug. 22, do.
	148	Re-metalling Trunk road No. 6 from the Red Hills to Goomadipoondy......	do.	Jan. 8, & 30, 1856. ..
	149	Constructing a branch road from the north end of Saint Thomas' Mount to Sydapet....	do.	Feb. 5, 1856.
	150	For making a new road from Sadras to Teroocalycoondrum and repairing the present road from Teroocalycoondrum to Chingleput....	do.	Jan. 25, do.
	151	Repairing the road from Streepermatoor to Mylapoor......	do.	Feb. 29, do.
		BUILDINGS.		
	152	Building the Head Assistant Collector's Cutcherry at Chingleput..	do.	Sep. 24, 1855.
		Total..Chingleput..	....	.. ..

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856 57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	
2,284	2,284	400	745	1,145	1,139	0	
2,284	2,284	400	745	1,145	1,139	0	
1,75,560	1,42,707	44,900	33,008	77,908	87,652	10,000	
2,93,273	1,50,000	3,260	25,000	28,260	50,000	2,15,013	The other portion, viz. Rs. 5,72,871 is taken in North Arcot.
3,350	0	0	0	0	3,350	0	
325	0	0	0	0	325	0	
2,96,948	1,50,000	3,260	25,000	28,260	53,675	2,15,013	
5,280	0	0	0	0	5,280	0	
11,550	0	0	0	0	11,550	0	
6,236	0	0	0	0	6,236	0	
20,300	0	0	0	0	20,300	0	
2,439	0	0	0	0	2,439	0	
14,500	0	0	0	0	14,500	0	
18,070	0	0	0	0	18,070	0	
78,375	0	0	0	0	78,375	0	
1,542	0	0	0	0	1,542	0	
1,542	0	0	0	0	1,542	0	
3,76,866	1,50,000	3,260	25,000	28,260	1,33,692	2,15,013	

District.		Description of Work	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
		IRRIGATION WORKS.		
	153	Restoring Samulconah ruined tank..	Govt.	Jan. 12, 1852
	154	Palaur annicut project, Estimate of Rs. 8,66,144, (Portion in the North Arcot District)... ..	H. C D	Nov. 8, 1854
	155	Village tank at Moshoor..	Govt.	Dec. 19, do.
	156	Annicut across the Ponnah or Poiney river	Govt. of India.	Jan. 26, 1855.
	157	Extension of Cheyaur annicut project.	Govt.	Feb 13, do.
North Arcot.	158	Raising the bank of the Vaniembaudy tank, renewing and heightening the stone facing, building a Calingulah and sluice and widening and clearing the supplying channel..	do.	Sep. 24, do.
	159	Building a sluice and calingulah to the Vasanthanada tank..	do.	do. do.
	160	Do. a sluice to the Pootoor tank.. ...	do.	do. do.
	161	Building an annicut to the Sumpungee Nellore channel and giving a sluice with a cut from it to the Alamailmungapooram	do.	do. do.
	162	Raising the bund of the Bomanaickenpolliem tank, renewing new facing of stone and constructing a calingulah and sluice....	do.	do. do.
	163	Building a sluice and repairing the bund of the Checkaud Hissa tank..	do.	Jan. 25, 1856.
	164	Building calingulahs and sluices to Cottiemungalum and other tanks and channels in Wandiwash talook	do.	Feb. 29, do.
		COMMUNICATIONS.		
	165	Road from Poothulput to Kurcumbaudy . ..	Govt. of India.	Aug. 20, 1852
	166	Trunk road No. 11 from Poothulput to Damulcherrvoo	Govt	Jan. 9, 1854.
	167	Completing road No. 11 between Chittoor and Poothulput....	do.	Oct. 14, do.
	168	Road from Palmanair to Vencatagherry Cottah..	Govt. of India.	Jan. 26, 1855.
	169	Road from Vellore to Arnee......	do.	do. do.
	170	Bridge across the river Palaur on the road from Vellore to Chittoor....	do.	do do.
	171	Road from Goriattum to Pallecondah... ..	Govt.	Feb. 24, do.
	172	Five bridges on Chittoor and Kurcumbaudy road.	do.	do. do.
	173	Constructing a bridge of 11 arches of 30 feet span across the Agarum river on Trunk road No. 1..	do.	June 6, 1855.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	
3,046	3,046	0	1,040	1,040	2,006	0	
5,72,871	3,00,000	1,73,841	84,000	2,57,841	1,52,000	1,63,030	The other portion viz. Rs. 2,93,273 is taken in Chingleput.
2,739	2,739	0	1,039	1,039	1,700	0	
31,206	31,206	5,190	16,000	21,190	10,016	0	
8,277	8,277	861	2,000	2,861	5,416	0	Rupees 12,668 were entered in the Budget of 1855-56 for 3 Estimates. The amount inserted here is for 2 Estimates remaining unfinished.
2,559	0	0	0	0	2,559	0	
294	0	0	0	0	294	0	
45	0	0	0	0	45	0	
357	0	0	0	0	357	0	
988	0	0	0	0	988	0	
2,420	0	0	0	0	2,420	0	
2,670	0	0	0	0	2,670	0	
6,27,472	3,45,268	1,79,892	1,04,079	2,83,971	1,80,471	1,63,030	
12,823	12,823	8,515	2,000	10,515	2,308	0	
31,955	31,955	14,242	2,000	16,242	15,713	0	
9,560	9,560	1,172	4,000	5,172	4,388	0	
32,053	32,053	1,433	4,000	5,433	18,000	8,620	
27,260	27,260	5,283	4,000	9,283	9,977	8,000	
72,673	72,673	12,023	8,000	20,023	36,000	16,650	
13,188	13,188	0	4,000	4,000	6,188	3,000	
21,426	21,426	250	3,000	3,250	9,176	9,000	
12,142	0	0	0	0	12,142	0	

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
North Arcot, (Concluded.)		COMMUNICATIONS, (Continued.)		
	174	For planting 10 Nurseries of useful trees at 107 Rs. each....	Govt.	Dec. 4, 1855.
	175	Charges for 1856-57, including repair of store sheds, gardeners' and waterwomen's wages, &c.	do.	do. do.
	176	Constructing a drain in the town of Chittoor....	do.	do. 20, do.
	177	Constructing connecting road from Wallajahnugger on Trunk road No. 1 to the railway station at Aumoor....	do.	Feb. 5, 1856.
	178	Constructing connecting road from Raneepett to Railway station at Aumoor......	do.	do. do.
	179	Road from Neelacontarayapettah on 2nd class road No. 3 to the Railway station at Aumoor....	do.	do. do.
	180	Constructing a branch road from the Palaur anicut to the 65th mile stone on the Great Western road.	do.	do. do.
	181	Improving the Syenagoontah ghaut..... ...	do.	do. 23, do.
	182	Constructing bridge of 6 arches over the head sluice of the Cauverypauk channel.. ..	do.	do. do.
	183	Constructing bridge of 3 arches over the Mahendrevady..	do.	do, do.
	184	Constructing bridge of 5 arches over the Chuckranulloor	do.	do. do.
		BUILDINGS.		
	185	Travellers' Bungalow at Naraharipett.. ..	do.	Dec. 19, 1854.
	186	Travellers' Bungalow at Kurcumbaudy.. ..	do.	do. do.
	187	For constructing 10 sheds for the accommodation of Overseers and storing tools....	do.	do. 4, 1855.
		Total ..North Arcot..	....	....
South Arcot.		IRRIGATION WORKS.		
	188	Sundry small works of Irrigation..	Govt.	May 16, 1854.
	189	Vicravady anicut and channel...... ..	Govt. and Fr. Govt. / Board of Revenue.	Aug. 19 do. / Apl. 2, 1855.
	190	Sundry works of Irrigation..	Govt.	Jan. 30, do.
	191	Constructing a second Calingulah at the north end of the bund on the Permal tank...	do.	Aug. 22, do.
	192	Sundry works of Irrigation...... ..	do.	Sep. 24, do.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1,700	0	0	0	0	1,700	0	
970	0	0	0	0	970	0	
295	0	0	0	0	295	0	
2,730	0	0	0	0	2,730	0	Vide letter to the Govt. of India, dated 5th Feb, 1856. No. 161.
4,208	0	0	0	0	4,208	0	
3,650	0	0	0	0	3,650	0	
2,940	0	0	0	0	2,940	0	
4,700	0	0	0	0	4,700	0	
5,700	0	0	0	0	5,700	0	
3,700	0	0	0	0	3,700	0	
5,000	0	0	0	0	5,000	0	
2,68,673	2,20,938	42,918	31,000	73,918	1,49,485	45,270	
1,929	1,929	0	500	500	1,429	0	
1,754	1,754	0	500	500	1,254	0	
1,000	0	0	0	0	1,000	0	
4,683	3,683	0	1,000	1,000	3,683	0	
9,00,828	5,69,889	2,22,810	1,36,079	3,58,889	3,33,639	2,08,300	
1,056	1,056	104	0	104	952	0	
10,007 4,900	14,907	10,000	2,000	12,000	2,907	0	
1,917	1,917	500	500	1,000	917	0	
7,231	0	0	0	0	7,231	0	
3,802	0	0	0	0	3,802	0	

District.		Description of Work.	Estimates Sanctioned. By whom.	Date.
1		2	3	4
South Arcot, (*Continued.*)		IRRIGATION WORKS, (*Continued.*)		
	193	Constructing sluices in the Condanjee tank and channel..	Govt.	Oct. 30, 1855.
	194	Constructing two bridges on the Condanjee channel	do.	do. do.
	195	Constructing annicut across the Geddelum river...	do.	Dec. 20, do.
	196	Improving and extending the Goverpett channel.	do.	Jan. 25, 1856.
	197	Improving channel from the Vellar annicut for the irrigation of Arriagoostee, &c. villages. ..	do.	do. do.
	198	Constructing a sluice and calingulah and raising the bank of the Yarianoor Tangul tank..	Govt.	Mar. 8, 1856.
	199	Rebuilding the Satheyamungalum annicut across the Gingee river......	do.	do. do.
	200	Constructing a calingulah, two sluices and repairing the bank of the Alagramum Panandoopet tank....	do.	do. do.
	201	Cutting a channel of irrigation from Puttombaukum channel to Yellmoodoo tank and building a calingulah....	do.	do. do.
	202	Constructing a regulating Dam across the head of the Mullataur channel....	do.	Feb. 13, do.
		COMMUNICATIONS.		
	203	Cutting a canal from the river Vellaur near Porto Novo to the Paravenar or Cuddalore river....	Govt. of India.	July 22, 1853.
	204	Stone Pier or jetty at the Port of Cuddalore.. ..	do.	do. do.
	205	Bridge across the Kalinjular between Pondicherry and Cuddalore (British moiety)... ..	do. / Govt.	Sep. 15, 1854. / Jan. 5, 1855.
	206	Road from Trinomally to Tindevanum through Gingee....	do.	Dec. 14, 1854.
	207	Canal from the Port of Trimulvassel to the Coleroon, Portion of the Estimate for Rs. 21,500..	do.	do. do.
	208	Road from Yailoor to the bank of the Vuddavaur..	do.	Dec. 19, 1854.
	209	Road from Cuddalore to the Vellaur......	Govt. of India.	Jan. 26, 1855.
	210	Bridges on road from Tindevanum to Trinomally, viz. over the Dondeyaur, Gingee river, Varaganuddee river and Toringelaur....	Govt.	Feb. 24, do.
	211	Bridge over the Ponyar river on the Southern Coast road immediately north of Cuddalore...	Govt of India.	June 1, do.
	212	Constructing a jetty near the Sea Custom House at Porto Novo.......	Govt.	June 21, do.
	213	Re-constructing the road from Chengamah to the Salem Frontier..	do.	Oct. 30, do.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
841 769	0	0	0	0	1,610	0	
24,000	0	0	0	0	24,000	0	
19,000	0	0	0	0	19,000	0	
10,000	0	0	0	0	10,000	0	
180	0	0	0	0	180	0	
681	0	0	0	0	681	0	
340	0	0	0	0	340	0	
1,460	0	0	0	0	1,460	0	
1,230	0	0	0	0	1,230	0	
87,414	17,880	10,604	2,500	13,104	74,310	0	
40,000	40,000	26,646	6,000	32,646	7,354	0	Portion of Rs. 47,000 entered in the Budget of 1854-55.
45,000	45,000	0	0	0	10,000	35,000	
17,675	0	0	0	0	0	17,675	Under the French Government, expenditure not known.
15,111	15,111	1,750	7,761	9,511	5,600	0	
8,500	8,500	4,300	2,000	6,300	2,200	0	
3,346	3,346	400	1,600	2,000	1,346	0	
42,000	42,000	21,000	9,000	30,000	12,000	0	
10,998	10,998	1,254	6,744	7,998	3,000	0	
50,000	25,000	2,000	23,000	25,000	25,000	0	
392	0	0	0	0	392	0	
4,446	0	0	0	0	4,446	0	

District.		Description of Work.	Estimates Sanctioned.	
			By whom.	Date.
1		2	3	4
South Arcot, (Concluded.)		COMMUNICATIONS, (Continued.)		
	214	Rebuilding the Bridge across the Rajah Voikal on the road from Porto Novo to Verdachellum.. ..	Govt.	Jan. 25, 1856.
	215	Completing road from Porto Novo to the Vellaur annicut on Trunk road No. 9.	do.	do. do.
	216	Completing road from Trunk road No. 9 to Pondicherry viâ Mylum	do.	do. do.
	217	Constructing two bridges on the road from Oolundoorpett to Cullacoorchy......	do.	Mar. 8, do.
	218	Bridge over the Geddalum on Trunk road No. 8...	do.	June 21, 1855.
	219	Bridge over the Pennaur on Trunk road No. 9......	do.	do. do.
		BUILDINGS.		
	220	Building 5 Travellers' Bungalows on Trunk road No. 9 between Vicravaudy and lower Coleroon annicut	Govt.	Mar. 8, 1856.
	221	Building Police Cutcherry at Chengum.. ..	do.	Feb. 13, do.
		Total..South Arcot	.... ..	....
Tanjore.		IRRIGATION WORKS.		
	222	Extending the lower Coleroon annicut. ..	Govt. of India.	Mar. 17, 1854.
	223	Extending Oopeanaur.	Govt.	July 22, do.
	224	Do. Meenachy and other channels. ..	do.	Feb. 3, 1855.
	225	Do. the Wyacoondum channel, Estimate of Rs. 34,134, (Portion in this District.) ..	Govt. of India.	Jan. 26, do.
	226	Improving Irrigation and Drainage connected with the Tulnoyer Cotagum....	Govt. of India.	Jan. 26, 1855.
	227	Sundry small works of irrigation...	Govt.	Sept. 24, do.
		COMMUNICATIONS.		
	228	Constructing a bridge across the lower Coleroon annicut on Trunk road No. 9..	do.	Apl. 21, 1854.
	229	Road between Cuttoor and Shengoondy..	do.	June 26, do.
	230	Do. Cullimode and Tritrapoondy..	do.	Aug. 25, do.
	231	Road from Tritrapoondy to Trivalore..	do.	Dec. 14, 1854.
	232	Enlarging Bridges in the Tritrapoondy talook. ..	do.	do. 19, do.
	233	Road between Ammapettah and Paupanassum..	Govt. of India.	Jan. 26, 1855.
	234	Improving Munnyar river for navigation.	do.	do. do.
	235	Alteration of the bridge across the Veerasholen between Mayaveram and Trivalore...	Govt.	Feb. 26, do.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856 57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1,800	0	0	0	0	1,800	0	
20,000	0	0	0	0	20,000	0	
2,000	0	0	0	0	2,000	0	
12,400	0	0	0	0	12,400	0	
12,219	0	0	0	0	12,219	0	
5,165	0	0	0	0	5,165	0	
2,91,052	1,89,955	57,350	56,105	1,13,4 55	1,24,922	52,675	
10,000	0	0	0	0	5,000	5,000	
844	0	0	0	0	844	0	
10,844	0	0	0	0	5,844	5,000	
3,89,310	2,07,835	67,954	58,605	1,26,559	2,05,076	57,675	
70,000	70,000	40,000	20,000	60,000	10,000	0	
7,550	7,550	4,114	2,436	6,550	1,000	0	
3,704	3,704	3,142	371	3,513	191	0	
14,099	14,099	0	10,000	10,000	4,099	0	The other portion, viz. Rs. 20,035 is taken in Trichinopoly.
26,758	26,758	13,124	1,500	14,624	12,134	0	
2,979	0	0	0	0	2,979	0	
1,25,090	1,22,111	60,380	34,307	94,687	30,403	0	
80,000	50,000	30,000	20,000	50,000	30,000	0	
4,873	4,873	4,164	0	4,164	709	0	
5,546	5,546	5,212	0	5,212	334	0	
14,000	14,000	11,882	0	11,882	2,118	0	
4,001	4,001	0	2,001	2,001	2,000	0	
42,165	42,165	22,295	8,520	30,815	11,350	0	
35,000	35,000	255	20,000	20,255	14,745	0	
2,548	2,548	0	1,548	1,548	1,000	0	

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
		COMMUNICATIONS, (*Continued.*)		
Tanjore, (*Continued.*)	236	Construction of a bridge over the Coleroon on the southern road between Chellumbrum and Shealy, Estimate Rupees .... 130,000 Deduct sanctioned from Pagoda Funds. 92,000	Govt. of India.	June 1, 1855.
	237	Constructing road, tunnels on and metalling the road from Tanjore to Poodoocottah.. ...	Govt.	do. 2, do.
	238	Construction of a bridge over the river Adapaur between Negapatam and Point Calamere. .	do.	July 12, do.
	239	Construction of a salt road from Malayoor to Teroonagherry......	do.	do. 13, do.
	240	Do. from Teroovengaud to Tranquebar and Sheally...	do.	do. do.
	241	Do. from Teroovengaud to Nydadavasil.. ..	do.	do. do.
	242	A bridge across Moneykameaur......	do.	do. do.
	243	Construction of ferry boats in the talooks of Vellangoody, Cabistellum, Paupanassum, Cootymoortyaur and Tavoor	do.	Sept. 11, do.
	244	Constructing a bridge across the Pootaur and tunnels over channels on the road from Nunnellum to Codavassel......	do.	Mar. 8, 1856.
	245	Constructing a bridge across the Vettaur between Codavassel and Cordacherry...... ..	do.	do. do.
	246	Do. bridge across the Moodecondanaur at Sheetacamungalum......	do.	do. do.
	247	Constructing a bridge across the river Nasooniaur on the road between Woortinaud Chuttrum and Puttoocottah......	do.	Feb. 29, do.
	248	Do. bridge across do. on the road between Puttoocottah and Manargoody..	do.	do. do.
	249	Do. bridge across do. on the road between Puttoocottah and Moottoopettah........	do.	do. do.
	250	Do. bridge across do. on the road between Manargoody and Adrampatam	do.	do. do.
	251	Improving and tunnelling the road between Velungaman and Paupanassum.	do.	Mar. 8, do.
	252	Improving and maintaining the canal from Tranquebar to Trimulvassel......	do.	Feb. 5, do.
		BUILDINGS.		
	253	Constructing a Sea Custom House at Adrampatam.	Govt.	Jan. 5, 1856.
	254	Do. a Talook Cutcherry at Triviaur. ..	do.	Mar. 8, do.
	255	Do. a Police Ameen's Cutcherry at Vellum..	do.	Feb. 13, do.
	256	Do. do at Needamungalum.... ...	do.	do. do.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	
38,000	38,000	0	0	0	38,000	0	
4,407	0	0	0	0	4,407	0	
11,507	0	0	0	0	11,507	0	
2,339 1,868 1,278 2,242	0	0	0	0	7,727	0	
2,675	0	0	0	0	2,675	0	
7,572	0	0	0	0	7,572	0	
10,900	0	0	0	0	10,900	0	
1,750	0	0	0	0	1,750	0	
3,300	0	0	0	0	3,300	0	
4,200	0	0	0	0	4,200	0	
4,800	0	0	0	0	4,800	0	
7,500	0	0	0	0	7,500	0	
4,300	0	0	0	0	4,300	0	
22,200	0	0	0	0	22,200	0	
3,18,971	1,96,133	73,808	52,069	1,25,877	1,93,094	0	
1,444	0	0	0	0	1,444	0	
5,500	0	0	0	0	3,500	2,000	
844	0	0	0	0	844	0	
844	0	0	0	0	844	0	

District.		Description of Work.	Estimates Sanctioned. By whom.	Date.
1		2	3	4
Tanjore, (*Concld.*)		BUILDINGS, (*Continued.*)		
	257	Constructing a Traveller's bungalow at the lower Coleroon annicut on Trunk road No. 9....... ..	do.	Mar. 8, 1856.
		Total..Tanjore..	....	....
Trichinopoly.		IRRIGATION WORKS.		
	258	Extending the irrigation from the Lulgoody channels to lands in Woodiarpollium talook... ..	Govt. of India.	Jan. 26, 1855.
	259	Main channel with branches from the Coleroon in Woodiarpollium talook	do.	do. do.
	260	Extending the Wyacoondum channel, Estimate of Rs. 34,134, (Portion in this District).. ..	do.	do. do.
		COMMUNICATIONS.		
	261	Road from Trichinopoly towards Dindigul. ..	Govt.	Dec. 14, 1854.
	262	Constructing a bridge over the Oopaur causeway near Samiaveram on Trunk road No. 8... ..	do.	June 6, 1855.
		Total..Trichinopoly..	....	.. ..
Madura.		IRRIGATION WORKS.		
	263	Constructing a surplus calingulah and earthwork in Cullevailputty tank..	Govt.	Sep. 24, 1855.
		COMMUNICATIONS.		
	264	High road No. 13 between Tondy and Coonnagoody......	Govt.	July 10, 1854.
	265	High road No. 26 between Theroomungalum and Sholavendan....	do.	do. do.
	266	High road No. 14 between Madura and Tondy..	do.	Jan. 11, 1853.
	267	Bridge over the Amaravutty river on the road from Coimbatore to Dindigul	do.	Feb. 27, 1855.
	268	Road No. 18 between Ullinagarum and Cumbum......	do.	do 17, do.
	269	High road No. 4 between Madura and Theroomungalum......	do.	do. do.
	270	Repairing road No. 22 between Theroopoovanum and Meyloor......	do.	June 18, do.
	271	Bridge over the Shunmooganuddee on road No. 2.	do.	July 5, do.
	272	Bridge over the Goodaur on road No. 8. ..	do.	do. do.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
2,250	0	0	0	0	1,250	1,000	
10,882	0	0	0	0	7,882	3,000	
4,54,943	3,18,244	1,34,188	86,376	2,20,564	2,31,379	3,000	
30,000	30,000	18,975	5,000	23,975	6,025	0	
52,952	52,952	10,000	20,000	30,000	22,952	0	
20,035	20,035	0	0	0	20,035	0	The other portion, viz. Rs. 14,099 is taken in Tanjore.
1,02,987	1,02,987	28,975	25,000	53,975	49,012	0	
15,177	10,000	4,451	4,726	9,177	6,000	0	
5,827	0	0	0	0	5,827	0	
21,004	10,000	4,451	4,726	9,177	11,827	0	
1,23,991	1,12,987	33,426	29,726	63,152	60,839	0	
435	0	0	0	0	435	0	
435	0	0	0	0	435	0	
8,607	8,607	1,305	800	2,105	3,000	3,502	
4,800	4,800	2,805	995	3,800	1,000	0	
6,255	6,255	4,490	600	5,090	1,165	0	
21,540	15,000	506	3,500	4,006	10,994	6,540	
4,551	4,551	36	500	536	2,015	2,000	
4,324	4,324	2,959	507	3,466	858	0	
3,610	0	0	0	0	2,000	1,610	
15,425	0	0	0	0	5,500	9,925	
7,300	0	0	0	0	3,500	3,800	

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
Madura, (Concluded.)		COMMUNICATIONS, (Continued.)		
	273	Repairing and improving a portion of road No. 18, from Butlagoondoo to its junction with road No. 15 at Pullaputty......	Govt.	July 5, 1855
	274	Making a portion of road No. 25 between Sattangoody and Oosalemputty..	do.	do. do.
	275	Repairing and improving road No. 16 between Trichinopoly and Dindigul.......	do.	Sep. 24. do.
	276	Improving road between Samianelloor in Madura and Dindigul......	do.	Jan. 25, 1856.
		BUILDINGS.		
	277	Talook Cutcherry at Meyloor.....	Govt.	Jan. 3, 1855.
		Alterations to the above.....	do.	Dec. 20, do.
	278	Additions to Police Ameen's Cutcherry at Comoothy.	do.	Oct. 30, do.
	279	Constructing a Treasury room to the Toddicumbu Talook Cutcherry....	do	do. do.
	280	Do. a Talook Cutcherry at Theroomungalum. ..	do.	Dec. 20, do.
		Total..Madura..	....	....
Tinnevelly.		IRRIGATION WORKS.		
	281	Constructing a sluice and rough stone revetment to Peryecolum tank..	Govt.	July 22, 1853.
	282	Syphon sluice under the supplying channel......	do.	June 20, 1854.
	283	Sundry works of irrigation....	do.	{ Jan. 5, 1855. July 22, 1853.
	284	Constructing a subsidiary tank in rear of the present tank in Memmany	do.	Sept. 1, 1855.
	285	Minor channel from Tharavoy Lake to Carameny river...	do.	Oct. 16, do.
		COMMUNICATIONS.		
	286	Improvement to road No. 12 from Palamcottah to Trichendoor......	Govt.	July 10, 1854.
	287	High road No. 4 between Palamcottah and the Aramboolу lines....	do.	Jan. 15, 1855.
	288	Road Nos. 14 and 15 between Trichendoor and Woothengoody....	do.	do. do.
	289	Bridge across the Asoor Oday on road No. 4.. ..	do.	do. do.
	290	Bridge across the Mumbeaur on road No. 4.. .	do.	do. do.
	291	Do. across the supplying channel of the Manaloor tank on road No. 2...	do.	June 2, do.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
7,884	0	0	0	0	4,000	3,884	
8,812	0	0	0	0	5,000	3,812	
14,170	0	0	0	0	5,000	9,170	
14,510	0	0	0	0	7,000	7,510	
1,21,788	43,537	12,101	6,902	19,003	51,032	51,753	
3,363	3,580	0	0	0	1,156	2,207	
217					217		
153	0	0	0	0	153	0	
172	0	0	0	0	172	0	
3,580	0	0	0	0	1,500	2,080	
7,485	3,580	0	0	0	3,198	4,287	
1,29,708	47,117	12,101	6,902	19,003	54,665	56,040	
5,246	5,246	4,320	0	4,320	926	0	
371	371	0	0	0	371	0	
10,503	10,503	4,882	794	5,676	4,827	0	
4,876	0	0	0	0	2,438	2,438	
3,263	0	0	0	0	3,263	0	
24,259	16,120	9,202	794	9,996	11,825	2,438	
2,919	2,919	508	350	858	2,061	0	
7,470	7,470	3,540	1,530	5,070	2,400	0	
2,827	2,827	0	1,000	1,000	1,827	0	
2,579	2,579	433	600	1,033	1,546	0	
8,859	6,000	2,000	4,000	6,000	2,859	0	
500	0	0	0	0	500	0	

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
Tinnevelly, (*Concluded.*)		COMMUNICATIONS, (*Continued.*)		
	292	Constructing a portion of road No 4 from Madura to Palamcottah between Sautpoor and Virdooputty	Govt.	Oct. 30, 1855.
	293	Constructing a portion of the same road between Gaingoordan and Shadykhan's Chuttrum......	do.	do. do.
	294	Constructing a jetty 300 feet long at the Port of Tuticorin.	do.	Mar. 8, 1856.
		BUILDINGS.		
	295	Building a wall round the Church under construction at Palamcottah..	Govt.	Feb. 12, 1856.
		Total ..Tinnevelly .	.....	....
Coimbatore.		IRRIGATION WORKS.		
	296	Sluice &c., to Humpapoor tank in Collegul......	Govt.	April 13,1853.
	297	Improving the Arackancottah channel.. ..	do.	July 16, do.
	298	Constructing head sluice to the Thuddapully channel..	Govt. of India.	Sep. 9, do.
		COMMUNICATIONS.		
	299	Constructing 2 platform bridges on the Coonoor Ghaut..	Govt.	May 26,1855.
	300	For making a new line of road to connect the road from Vuttapavay with that from Colingode to Marchenaikenpollium....	do.	Sep. 24, do.
	301	Constructing two bridges on the road from Coimbatore to Metapollium...... ...	do.	Oct. 30, do.
	302	Constructing 2 arched drains and a bridge on the road leading from Polachee to Colingode......	do.	do. do.
	303	Constructing bridges on the road from Coonoor to Jackatalla......	do.	Jan. 25, 1856.
	304	Supplemental estimate for completing Suttimungalum bridge.	do.	do. 26, do.
	305	Constructing 7 bridges on the road from Metapollium to Trichinopoly..	do.	do. 25, do.
	306	Repairing and improving road from Coimbatore to Tadacum .... ..Rupees 975 Do. from Tadacum to Ootacamund....3,300	do.	do. do.
	307	Repairing road from Polachee to Badekypollium ....Rupees 1,100 And from Polachee to Darapooram...... 2,000	do.	Jan. 25, do.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
24,745	0	0	0	0	12,000	12,745	
9,941	0	0	0	0	5,000	4,941	
4,650	0	0	0	0	4,650	0	
64,490	21,795	6,481	7,480	13,961	32,848	17,686	
790	0	0	0	0	790	0	
790	0	0	0	0	790	0	
89,539	37,916	15,683	8,274	23,957	45,458	20,124	
918	918	0	0	0	918	0	
9,997	9,997	3,000	2,500	5,500	4,497	0	
23,631	23,631	2,700	8,000	10,700	12,931	0	
34,546	34,546	5,700	10,500	16,200	18,346	0	
2,057	0	0	0	0	2,057	0	
401	0	0	0	0	401	0	
6,240	0	0	0	0	6,240	0	
900	0	0	0	0	900	0	
2,730	0	0	0	0	2,730	0	
3,200	0	0	0	0	3,200	0	
11,500	0	0	0	0	11,500	0	
4,275	0	0	0	0	4,275	0	
3,100	0	0	0	0	3,100	0	

District.		Description of Work	Estimates Sanctioned. By whom	Estimates Sanctioned. Date.
1		2	3	4
Coimbatore, (*Concluded.*)		COMMUNICATIONS, (*Continued.*)		
	308	Constructing road from Collegul to Hussanoor Ghaut..	Govt.	Jan. 25, 1856.
	309	Constructing 2 bridges in the limits of Comratoor and Aumoor on the road between Coimbatore and Suttimungalum in the limits of Mettapollium..	do.	Mar. 8, do.
	310	Constructing a bridge over the Yailerampullum river on the road from Coimbatore to Mysore..	do.	do. do.
	311	Constructing 8 bridges on the road from Suttimungalum to Pennary....	do.	Jan. 25, do.
		BUILDINGS.		
	312	Modloor Chuttrum	Govt.	Jan. 3, 1855.
	313	Market places at 3 stations...... .. .	do.	Mar 2, do.
	314	Choultry at Pookanaikenpolliem...... ..	do.	do do.
	315	Constructing a Moonsiff's Court at Collegal......	do.	Nov. 30, do.
	316	Constructing a Moonsiff's Court at Coimbatore .	do.	do. do
	317	Constructing out Offices to Odamulcottah Travellers' Bungalow........	do.	Mar. 8, 1856.
	318	Constructing European Infantry Barracks at the Neilgherries with subsidiary works.......	do.	July 11, 1851, and others.
	319	Improving Civil Dispensary at Coonoor	do.	Jan. 25, 1856.
	320	Improving the Hoozoor Cutcherry at Coimbatore.	do.	Mar. 8, do.
	321	Constructing a porch and altering the roads leading to the Church at Ootacamund.... ..	do.	Feb. 12, do.
		Total..Coimbatore..	....	....
Salem.		IRRIGATION WORKS.		
	322	Yettapooram Wodashul tank......	Govt.	Feb. 17, 1855.
	323	Cullingherry (old) tank....	do.	do. do.
	324	Coorchee annicut tank and channel.... ..	do.	do. do.
	325	Veytacaranoor cone tank........ ...	do.	do. do.
	326	Poodoopolliem tank....	do.	do. do.
	327	New tank annicut and supplying channel near Poothoor in Ahtoor talook......	do.	do. do.
	328	Proposed Yeeramasamoodrum annicut channel &c. Salem talook........	do.	do. do.
	329	Closing breach of the Mylapollium old tank, constructing a calingulah and two sluices	do.	Sep. 24, do.
	330	Raising the bund of the Wooracairy small old tank and constructing a sluice and Calingulah	do.	do. do.
	331	Raising bund and Calingulah of the Mooroor Chakle Yairy tank	do.	do. do.

No. 2—*Continued.*

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
8,500	0	0	0	0	8,500	0	
1,050	0	0	0	0	1,050	0	
8,000	0	0	0	0	8,000	0	
21,600	0	0	0	0	21,600	0	
73,553	0	0	0	0	73,553	0	
447	447	0	0	0	447	0	
1,500	1,500	0	0	0	1,500	0	
850	850	0	0	0	850	0	
1,240	0	0	0	0	1,240	0	
2,010	0	0	0	0	1,010	1,000	
360	0	0	0	0	360	0	
14,06,243	4,00,000	3,80,000	20,000	4,00,000	4,00,000	6,06,243	
2,370	0	0	0	0	2,370	0	
950	0	0	0	0	950	0	
1,680	0	0	0	0	1,680	0	
14,17,650	4,02,797	3,80,000	20,000	4,00,000	4,10,407	6,07,243	
15,25,749	4,37,343	3,85,700	30,500	4,16,200	5,02,306	6,07,243	
1,093	1,093	0	500	500	593	0	
1,561	1,561	298	500	798	763	0	
1,799	1,799	119	500	619	1,180	0	
874	874	22	300	322	552	0	
1,152	1,152	366	400	766	386	0	
2,159	2,159	362	500	862	1,297	0	
1,904	1,904	1,019	400	1,419	485	0	
500	0	0	0	0	500	0	
280	0	0	0	0	280	0	
500	0	0	0	0	500	0	

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
Salem, (Concluded.)		IRRIGATION WORKS, (Continued.)		
	332	Raising bund of the Nahtikaputty Agrarum tank, &c. and constructing a sluice	Govt.	Sep. 24, 1855.
	333	Repairing Tattumputty annicut, constructing Calingulahs and a covered drain and for clearing channel....	do.	do. do.
	334	Repairing bund and Calingulah of the Vellalaputty Sundapen tank	do.	do. do.
	335	Repairing the bund of the Bomumputty tank and constructing two sluices..	do.	do. do.
	336	Restoring ruined tank of Mullagherry....	do.	Feb. 9, 1856.
		COMMUNICATIONS.		
	337	Constructing Wodyapully bridge....	Govt.	Jan. 2, 1852.
	338	Constructing Narsingapooram bridge.. ..	do.	Sep. 9, 1854.
	339	Construction of covered drains and road dams on several lines of road..	do.	June 2, 1855.
	340	Constructing a road metalled with bridges, &c. from the 12th mile stone on the road from Salem to Namcul...	do.	Sep. 24, do.
	341	Making a Cart road from Yercaud on the Sherveroy Hills to the Railway station at Mullapoorum	do.	Oct. 30, 1855.
	342	Making a road from Adamuncottah on the Salem and Madras road also to the Railway station. ...	do.	do. do.
	343	Repairing road from Salem to Cuddalore..	do.	Jan. 25, 1856.
	344	Repairing road between Vaniembaudy and Bhowany on Trunk road No. 5	do.	do. 8, do.
		BUILDINGS.		
	345	Constructing a Hospital for Veterans at Salem. ..	do.	Mar. 7, 1854..
	346	Moonsiff's Court House at Namagherry Pettah. ..	do.	Jan. 25, 1855.
		Total...Salem...	....	....
Canara.		COMMUNICATIONS.		
	347	Completion of the Munzerabad Ghaut....	Govt.	Mar. 29, 1853.
	348	Bridges on the Arbyle road....	Govt. of India.	Sept. 2, do.
	349	Bridges on the Sircy and Siddhapoor road. ..	Govt.	Oct. 8, do.
	350	Making a road from Guersuppah to Sircy......	do.	Dec. 14, 1854.

No. 2—*Continued.*

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	
430	0	0	0	0	430	0	
500	0	0	0	0	500	0	
360	0	0	0	0	360	0	
250	0	0	0	0	250	0	
2,000	0	0	0	0	2,000	0	
15,362	10,542	2,186	3,100	5,286	10,076	0	
1,332	1,332	0	400	400	932	0	
1,052	1,052	0	300	300	752	0	
1,819	0	0	0	0	1,819	0	
5,800	0	0	0	0	5,800	0	
24,600 15,280	0	0	0	0	39,880	0	
6,000	0	0	0	0	6,000	0	
24,000	0	0	0	0	24,000	0	
79,883	2,384	0	700	700	79,183	0	
2,129	2,129	263	0	263	1,866	0	
934	934	0	0	0	934	0	
3,063	3,063	263	0	263	2,800	0	
98,308	15,989	2,449	3,800	6,249	92,059	0	
13,590	13,590	6,640	3,360	10,000	3,590	0	
31,917	31,917	21,670	9,000	30,670	1,247	0	
9,960	9,960	6,050	2,610	8,560	1,400	0	
20,426	20,426	3,787	9,600	13,387	7,039	0	

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
Canara, (Concluded.)		COMMUNICATIONS, (*Continued.*)		
	351	Three road Circuits........	Govt of India.	Jan. 26, 1855.
	352	Extension of the Quay at Mangalore....	Govt.	Feb. 24, do.
	353	Yellore, Sircy and Hulundee road Circuit	Govt. of India.	June 1, do.
		BUILDINGS.		
	354	Sea Custom House at Coomptah....	Govt.	Nov. 25, 1851.
	355	Embankment at the Coomptah Sea Custom House.	do.	do. do.
	356	New Jail at Honore....	Govt. of India.	July 30, 1853.
	357	Court House for the District Moonsiff at Bilghy..	Govt.	Jan. 3, 1855.
	358	Court House for the District Moonsiff's at Soopah.	do.	do do.
	359	Six 2nd Class Bungalows on the road from Hullial and Singawaree Ghaut at 704½ Rupees each. ..	do.	Feb. 24, do.
	360	Sayer Chowkies and Police Tannahs at various places........	do.	do. do.
	361	Three weighing sheds at Coomptah....	do.	do. do.
	362	Tahsildar's Cutcherry at Bilghy....	do.	Jan. 25, 1856.
	363	Tahsildar's Cutcherry at Pootoor.......	do.	do. do.
	364	Portico to the Hoozoor Cutcherry at Mangalore..	do.	do. do.
	365	Peishcar's Cutcherry at Bellatangady....	do.	do. do.
	366	Compound wall to the Cutwall's choultry at Mangalore.	do.	do. do.
	367	Police Tannahs at Munchikerry and Eckumby....	do.	do. do.
	368	Traveller's Bungalow at Sedashegur....	do.	do. do.
		Total..Canara..	....	....
Malabar.		IRRIGATION WORKS.		
	369	Dam at Chetwye....	H. C. D Govt of Madras	Dec. 15, 1852. Aug. 19, 1854.
		COMMUNICATIONS.		
	370	Constructing a bridge over the Iretty river on Trunk road No. 4...	Govt.	Aug. 19, 1854.
	371	Improving the Paulghaut and Trichoor road, constructing two bridges and forming two branch connecting roads...	Govt. of India.	June 1, 1855.
	372	Road from Calicut by Beypoor, Condotty, Malapooram, Angadypooram and Manar to Mundoor on Trunk road No. 4 to Paulghaut.. ..	do.	do. do.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	* Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
34,997	34,997	16,000	15,000	31,000	3,997	0	
10,713	10,713	3,153	1,560	4,713	6,000	0	
34,996	34,996	0	0	0	34,996	0	
1,66,599	1,56 599	57,300	41,030	98,330	58,269	0	
1,747	1,747	0	0	0	1,747	0	
300	300	0	0	0	300	0	
20,188	20,188	11,050	4,410	15,460	4,728	0	
1,392	1,392	30	1,130	1 160	232	0	
1,392	1,392	100	1,060	1,160	232	0	
4,225	4,225	0	1,225	1,225	3,000	0	
271	271	0	203	203	68	0	
125	125	0	50	50	75	0	
4,000	0	0	0	0	4,000	0	
4,200	0	0	0	0	4,200	0	
160	0	0	0	0	160	0	
2,558	0	0	0	0	2,558	0	
390	0	0	0	0	390	0	
132	0	0	0	0	132	0	
2,090	0	0	0	0	2,090	0	
43,170	29,640	11,180	8,078	19,258	23,912	0	
1,99,769	1,86,239	68,480	49,108	1,17,588	82,181	0	
} 46,116	46,116	17,500	7,500	25,000	21,116	0	
46,116	46,116	17,500	7,500	25,000	21,116	0	
29,923	29,923	5,000	9,923	14,923	15,000	0	
49,061	35,000	1,000	19,000	20,000	29,061	0	
52,083	35,000	10,500	10,000	20,500	31,583	0	

District.		Description of Work.	Estimates Sanctioned.	
			By whom.	Date.
1		2	3	4
Malabar, (Concluded.)		COMMUNICATIONS, (*Continued.*)		
	373	Improving the road from Waddakancherry to Tattamungalum	Govt.	Oct. 30, 1855.
	374	Improving the road from Molspooram to Terroovangaudy.....	do.	Nov. 15, do.
	375	Improving the road from Cholacal to Toonoor..	do.	do. 30, do.
	376	Completing the repair of the road from Wundoor to Angadypooram.	do.	do. do.
	377	Improving the road from Areacode to Munjerry..	do.	do. do.
	378	Making a road from Tycad to Vaylancoonatha..	do.	do. do.
	379	Improving the road from Munjerry to Condotty..	do.	do. do.
	380	Constructing three bridges on the road between Ootacamund and Avalanche..	do.	Jan. 25, 1856.
	381	Constructing Kulputty bridge near Paulghaut..	do.	do. do.
	382	Improving bed of the canal between Pooraparamba sluice and Venjally lake....	do.	Feb. 23, do.
	383	Constructing bridge across the Vayhithavalum intersecting road from Coimbatore to Cochin.....	do.	Jan. 25, do.
	384	Constructing a bridge across the Kullaur Todu stream on Trunk road No. 4.	do.	Jan. 22, do.
	585	Cutting a canal from the Eddooterity channel to the Chetwye lake...	do.	Feb. 29, do.
		BUILDINGS.		
	386	Providing additional ware rooms at Cochin for storing goods..	Govt.	Sep. 24, 1855.
	387	Sinking a well in the Bungalow compound at Waddakencherry......	do.	Oct. 30, do.
	388	Repairing, reflooring and making a trench round the Moosaferkanah at Tirtallah.. ..	do.	do. do.
	389	Constructing Moonsiff's Court Houses at Puttamby, Shernad, Pynad & Temalpooram at Rs 1,060 each.	do.	Nov. 30, do.
	390	Constructing four Gun sheds in the Fort at Cannanore..	do.	Jan. 31, 1856.
	391	Improving the Pay office at Cannanore.. ...	do.	do. do.
		Total..Malabar .	....	....
Madras.		COMMUNICATIONS		
	392	Constructing three Groynes for the protection of the Sea face of Fort Saint George...	Govt.	Dec. 12, 1854.
	393	Constructing three Groynes for the protection of the North Beach and for a roadway from the Custom House to Clives' Battery... ..	Govt. of India.	June 1, 1855.

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
8,630	0	0	0	0	.8,630	0	
3,500	0	0	0	0	3,500	0	
4,670	0	0	0	0	4,670	0	
1,570	0	0	0	0	1,570	0	
2,080	0	0	0	0	2,080	0	
2,300	0	0	0	0	2,300	0	
17,570	0	0	0	0	17,570	0	
2,190	0	0	0	0	2,190	0	
20,000	0	0	0	0	20,000	0	
19,920	0	0	0	0	19,920	0	
2,570	0	0	0	0	2,570	0	
2,800	0	0	0	0	2,800	0	
1,470	0	0	0	0	1,470	0	
2,20,337	99,923	16,500	38,923	55,423	1,64,914	0	
866	0	0	0	0	866	0	
170 / 200	0	0	0	0	370	0	
4,240	0	0	0	0	4,240	0	
400	0	0	0	0	400	0	
100	0	0	0	0	100	0	
5,976	0	0	0	0	5,976	0	
2,72,429	1,46,039	34,000	46,423	80,423	1,92,006	0	
51,533	51,533	20,824	10,000	30,824	20,709	0	
43,037	43,037	29,582	10,000	39,582	3,455	0	
94,570	94,570	50,406	20,000	70,406	24,164	0	

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
		BUILDINGS.		
Madras, (*Concluded.*)	394	For additions and improvements to the Small Cause Court buildings......	Govt.	Dec. 19, 1855.
	395	Building a cistern, providing a lift pump and laying on water by pipes to the new bath room of the Lying-in-Hospital....	do.	Jan. 3, 1856.
	396	Laying on water by pipes to the Surgery and bath rooms in the main buildings of the Lying-in-Hospital......	do.	do. do.
	397	Improvements and alterations required to the Triplicane Dispensary.....	do.	do. 22, do.
		Total..Madras..	....	....
		COMMUNICATIONS.		
East Coast Canal.	398	Adyar and Palar canal....	Govt. of India.	June 1, 1855.
	399	Constructing a bridge and road across the waste water of the Red Hill tank to connect Shadiencoopum with the bridge across Cochrane's canal......	Govt.	July 11, do.
		Total..East Coast Canal..	......	....
		BUILDINGS.		
Mysore.	400	Constructing a ward for the sick Native followers of a Regiment of Native Cavalry at Bangalore..	Govt.	Oct. 11, 1855.
	401	Improving the privies of the Dragoon Barracks at Bangalore........	do.	Mar. 8, 1856.
	402	Constructing quarters for the Regimental Serjeant Major and Quarter Master Serjeant in the Dragoon Barracks square at Bangalore.......	do.	do. do.
	403	Putting up a ridge ventilator to the Barracks of the European Horse Artillery........	do.	do. 10, do.
	404	Supplying ridge ventilators to the Hospital and Out-houses of the European Horse Artillery at Bangalore, and building a curtain wall in front of the cook room......	do.	do. do.
		Total..Mysore..	....	....

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
2,746	0	0	0	0	2,746	0	
1,488	0	0	0	0	1,488	0	
1,516	0	0	0	0	1,516	0	
7,130	0	0	0	0	7,130	0	
12,880	0	0	0	0	12,880	0	
1,07,450	94,570	50,406	20,000	70,406	37,044	0	
2,21,873	1,00,000	59,378	40,622	1,00,000	1,21,873	0	
4,720	0	0	0	0	4,720	0	
2,26,593	1,00,000	59,378	40,622	1,00,000	1,26,593	0	
1,482	0	0	0	0	1,482	0	
5,026	0	0	0	0	5,026	0	
6,090	0	0	0	0	6,090	0	
1,770	0	0	0	0	1,770	0	
536	0	0	0	0	536	0	
14,904	0	0	0	0	14,904	0	

District.		Description of Work.	Estimates Sanctioned. By whom.	Estimates Sanctioned. Date.
1		2	3	4
Hyd. Sub. Force, Secunderabad.		BUILDINGS.		
	405	Constructing new European Infantry Barracks at Trimulgherry near Secunderabad	Govt.	Feb. 9, 1855.
	406	Providing Hospital accommodation for the Native Camp Followers of the Horse Field Battery and Regiment of Cavalry at Secunderabad	do.	Aug 16, do.
	407	Constructing a detached building for the treatment of severe cases in the Hospital attached to the Place of Arms at Secunderabad..	do.	do. do.
	408	Constructing an enclosure wall to the Protestant Burial Ground	do.	do 29, do.
		Total..Secunderabad..	....	.. ..
Saugor.		BUILDINGS.		
	409	Altering the guard room of the Flag staff into a place of confinement	Govt.	Sept. 4, 1855.
	410	Constructing a main guard room with a separate room for a Native Officer..	do.	do. do.
	411	Building a timber shed in the Executive Engineer's work yard......	do.	do. do.
	412	Constructing a gram shed in the Cavalry lines.....	do.	Jan. 25, 1856.
	413	Constructing double cook room for the Artillery Serjeants Quarters....	do.	Sept. 13, 1855.
		Total..Saugor..	....	....
Jaulnah.		BUILDINGS.		
	414	Improving the Barracks of the European Horse Artillery.....	Govt.	Jan. 11, 1855.
		Total..Jaulnah..	....	....
				ABST
		Irrigation Works.......	....	....
		Communications..	....	....
		Buildings	....	....
		Total .	....	....

Amount of sanction.	Amount already authorized to be expended.	Actual expenditure up to December 1855.	Probable further expenditure up to 30th April 1856.	Total computed expenditure within the current official year.	Amount required for the expenditure of 1856-57.	Remaining amount available for completion.	Remarks.
5	6	7	8	9	10	11	12
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
4,77,923	4,77,923	4,30,388	39,612	4,70,000	7,923	0	The total amount sanctioned by the Government of India on the 10th January 1856, for these Barracks is Rs. 11,59,077, of which Rupees 4,77,923 is entered in this Budget, and the remainder Rs. 6,81,154 in No. 1.
5,025	0	0	0	(	5,025	0	
2,190	0	0	0	0	2,190	0	
3,205	0	0	0	0	3,205	0	
4,88,343	4,77,923	4,30,388	39,612	4,70,000	18,343	0	
345							
1,488	} 0	0	0	0	2,938	0	
1,105							
640	0	0	0	0	640	0	
204	0	0	0	0	204	0	
3,782	0	0	0	0	3,782	0	
9,245	6,163	3,512	0	3,512	5,733	0	
9,245	6,163	3,512	0	3,512	5,733	0	
RACT.							
28,95,641	20,31,942	....	....	12,50,561	10,74,173	5,70,907	
38,09,468	24,22,170	....	....	14,58,434	20,30,400	3,20,634	
21,71,698	9,99,303	....	....	9,49,527	6,02,641	6,19,530	
88,76,807	54,53,415	....	....	36,58,522	37,07,214	15,11,071	

J. D. BOURDILLON,

Secretary to Government.

STATEME

GENERAL ABSTRACT OF THE PROPOSED EXPENDITURE OF NEW

THE OFFICIAL

Districts or Divisions.	In Budget No. 1.				In Bud	
	Irrigation Works.	Communications.	Buildings.	Total.	Irrigation Works.	Communications.
1	2	3	4	5	6	7
1 Ganjam	30,000	53,750	0	83,750	38,190	44,819
2 Vizagapatam	0	1,00,000	0	1,00,000	0	31,431
3 Rajahmundry	1,50,000	2,44,619	47,028	4,41,647	1,92,743	95,297
4 Masulipatam	2,14,820	30,000	0	2,44,820	2,01,705	1,35,800
5 Guntoor	50,000	0	0	50,000	1,02,952	98,989
6 Nellore	0	1,30,000	0	1,30,000	57,164	1,57,978
7 Cuddapah	0	1,50,000	0	1,50,000	7,060	72,211
8 Bellary	0	60,600	50,000	1,10,600	24,690	1,39,108
9 Kurnool	0	0	0	0	0	86,513
10 Chingleput	0	1,10,240	0	1,10,240	53,675	78,375
11 North Arcot	0	1,43,457	0	1,43,457	1,80,471	1,49,485
12 South Arcot	0	1,09,838	0	1,09,838	74,310	1,24,922
13 Tanjore	0	0	0	0	30,403	1,93,094
14 Trichinopoly	0	55,000	0	55,000	49,012	11,827
15 Madura	0	46,660	0	46,660	435	51,032
16 Tinnevelly	0	44,000	0	44,000	11,825	32,843
17 Coimbatore	40,000	28,000	0	68,000	18,346	73,553
18 Salem	0	0	0	0	10,076	79,183
19 Canara	0	52,021	0	52,021	0	58,269
20 Malabar	0	0	0	0	21,116	1,64,914
21 Madras	0	0	1,07,390	1,07,390	0	24,164
22 East Coast Canal.	0	1,15,000	0	1,15,000	0	1,26,593
23 Mysore.	0	0	50,000	50,000	0	0
24 Hyderabad	0	0	4,81,154	4,81,154	0	0
25 Saugor	0	0	0	0	0	0
26 Jaulnah	0	0	0	0	0	0
Total..	4,84,820	14,73,185	7,35,572	26,93,577	10,74,173	20,30,400

NT N°. 3.

WORKS AND REPAIRS IN THE MADRAS PRESIDENCY WITHIN YEAR 1856-57.

get No. 2.		Total for New Works.				Repairs.	
Buildings.	Total.	Irrigation Works.	Communications.	Buildings.	Total.	Irrigation Works.	Communications.
8	9	10	11	12	13	14	15
11,468	94,477	68,190	98,569	11,468	1,78,227	14,400	10,535
15,561	46,992	0	1,31,431	15,561	1,46,992	8,500	8,47[illegible]
13,340	3,01,380	3,42,743	3,39,916	60,368	7,43,027	2,30,000	12,0[illegible]
3,984	3,41,489	4,16,525	1,65,800	3,984	5,86,309	99.000	5,800
4,314	2,06,255	1,52,952	98.989	4,314	2,56,255	38,000	7,000
13,876	2,29,018	57,164	2,87,978	13,876	3,59,018	64,860	23,031
170	79,441	7,060	2,22,211	170	2,29,441	30.920	17,875
17,113	1,80,911	24,690	1,99,708	67,113	2,91,511	1,06,336	65,925
1,139	87,652	0	86,513	1,139	87,652	20,000	12,400
1,542	1,33,592	53,675	1,88,615	1,542	2,43,832	47,262	86,562
3,683	3,33,639	1,80,471	2,92,942	3,683	4,77,096	40,334	58,117
5,844	2,05,076	74,310	2,34,760	5,844	3,14,914	48,000	60,641
7,882	2,31,379	30,403	1,93,094	7,882	2,31,379	1,70,000	20,976
0	60,839	49,012	66,827	0	1,15,839	94,149	28,256
3,198	54,665	435	97,692	3,198	1,01,325	24,319	4,430
790	45,458	11,825	76,843	790	89,458	60,123	1,717
4,10,407	5,02,306	58,346	1,01,553	4,10,407	5,70,306	20,500	26,661
2,800	92,059	10,076	79,183	2,800	92,059	18,071	9,801
23,912	82,181	0	1,10,290	23,912	1,34,202	0	45,207
5,976	1,92,006	21,116	1,64,914	5,976	1,92,006	856	25,388
12,880	37,044	0	24,164	1,20,270	1,44,434	0	3,000
0	1,26,593	0	2,41,593	0	2,41,593	0	0
14,904	14,904	0	0	64,904	64,904	0	0
18,343	18,343	0	0	4,99,497	4,99,497	0	0
3,782	3,782	0	0	3,782	3,782	0	0
5,733	5,733	0	0	5,733	5,733	0	0
6,02,641	37,07,214	15'58,993	35,03,585	13,38,213	64,00,791	11,25,630	5,33,845

STATEMENT No. 3, *Concluded.*

Repairs.		Grand Total.				Districts or Divisions	
Buildings.	Total.	Irrigation Works.	Communications.	Buildings.	Total.		
16	17	18	19	20	21		1
1,488	26,423	82,690	1,09,104	12,956	2,04,650	1	Ganjam. ....
1,550	18,523	8,500	1,39,904	17,111	1,65,515	2	Vizagapatam......
10,005	2,52,055	5,72,743	3,51,966	70,373	9,95,082	3	Rajahmundry .....
12,964	1,17,764	5,15,725	1,71,600	16,948	7,04,073	4	Masulipatam......
3,500	48,500	1,90,952	1,05,989	7,814	3,04,755	5	Guntoor.........
520	78,411	1,12,024	3,11,009	14,396	4,37,429	6	Nellore.. ....
200	48,995	37,980	2,40,086	370	2,78,436	7	Cuddapah........
3,114	1,75,375	1,31,026	2,65,633	70,227	4,66,886	8	Bellary..........
1,500	33,900	20,000	98,913	2,639	1,21,5[illegible]2	9	Kurnool. ....
186	1,34,010	1,00,937	2,75,177	1,728	3,77,842	10	Chingleput .. ....
2,031	1,00,482	2,20,805	3,51,059	5,714	5,77,578	11	North Arcot......
929	1,09,570	1,22,310	2,95,401	6,773	4,24,484	12	South Arcot......
2,860	1,93,836	2,00,403	2,14,070	10,742	4,25,215	13	Tanjore..........
2,386	1,24,791	1,43,161	95,083	2,386	2,40,630	14	Trichinopoly......
3,997	32,746	24,754	1,02,122	7,195	1,34,071	15	Madura...........
2,807	64,647	71,948	78,560	3,597	1,54,105	16	Tinnevelly ....
7,370	54,531	78,846	1,28,214	4,17,777	6,24,837	17	Coimbatore......
1,129	29,001	28,147	88,984	3,929	1,21,060	18	Salem............
4,000	49,207	0	1,55,497	27,912	1,83,409	19	Canara..........
1,629	27,773	21,972	1,90,302	7,505	2,19,779	20	Malabar..........
1,25,000	1,28,000	0	27,164	2,45,270	2,72,434	21	Madras......... ..
0	0	0	2,41,593	0	2,41,593	22	East Coast Canal...
0	0	0	0	64,904	64,904	23	Mysore......... ...
4,500	4,500	0	0	5,03,997	5,03,997	24	Hyderabad.......
0	0	0	0	3,782	3,782	25	Saugor..........
1,430	1,430	0	0	7,163	7,163	26	Jaulnah..... ... .
1,94,995	18,54,470	26,84,623	40,37,430	15,33,208	82,55,261		Total..

J. D. BOURDILLON,

Secretary to Government.

Letter from Lieutenant Colonel W. E. Baker, *Secretary to the Government of India ; to* J. D. Bourdillon, Esq., *Secretary to the Government of Fort St. George dated Fort William, the* 11*th July* 1856. *No.* 3173.

Sir,

I am directed to acknowledge the receipt of your letter No. 420, dated 19th March, 1856, submitting for the orders of the Supreme Government, Statements Nos. I and II of projects of Public Works proposed to be undertaken or continued in the Presidency of Fort St. George during the official year 1856-57.

2. The Right Honorable the Governor General in Council has observed with much satisfaction, that these Statements have been prepared with the greatest care, that they are perfect in form and complete in all their details ; and I am directed to record the high commendation of the Government of India for the admirable manner in which the Madras Public Works Budget has been presented. I am also to add, that a copy of this Budget will be forwarded to the other Governments as a model for their imitation.

3. The Government of India approves of the projects proposed for execution during the year 1856-57, with a few exceptions noticed in a subsequent part of this letter ; but I am to observe that, for the present, the prohibition to commence new works conveyed in my letter No. 2048 dated 6th May, must be considered to be still in force, notwithstanding the general sanction which is now accorded to particular projects.

4. The omission from Statement No. I of any proposed expenditure during the year on new works which require to be referred to the Honorable Court of Directors, is approved.

5. The retention in Statement No. I of projects (already brought forward in former Budgets) that have been recommended to the Home Government, but on which no orders have yet been received, is also approved. Such unsanctioned projects could not properly be entered in Statement No. II, and it is a correct course to continue

bringing them forward in Statement No. I, until final orders shall have been passed upon them.

6. I now proceed to convey the orders of the Government of India upon the several projects enumerated in your letter under acknowledgment, following the same classification and order therein adopted; and I am instructed to remark, that the consideration of these important projects has been greatly facilitated by the very full and clear manner in which the history, nature and bearing of each, have been described in your Despatch.

Irrigation Works.

7. No. 45. Statement No. I. The project for an "annicut at Streevigoontum across the Tambrapoorny river in Tinnevelly," will be recommended to the Honorable Court of Directors for approval.

8. No. 17. Statement I. The project for the continuation of the southern high level channel from the Kistnah annicut, will also be recommended for the approval of the Court of Directors, but I am directed to point out as an omission, that no designs have been submitted for the aqueducts across the several streams alluded to, nor have the streams themselves been marked on the sketch map.

9. To the project No. 18, which is a part of the development of the entire Kistnah scheme, the Government of India is willing to accord a general sanction.

It is not, however, I am to observe, a complete project, inasmuch as the bridges and minor channels of distribution remain unprovided for. The selection of a site for the channel, in such near proximity to the river, has probably been guided by the circumstance that the river's margin is higher than the adjoining land; but if this river be given, like most other rivers in alluvial soil, occasionally to erode its banks, its neighbourhood to the canal may prove to be a source of frequent apprehension and danger. In regard to the Kistnah project generally, I am to observe, that no calculation of the supply of water, available at different seasons, to feed the channels already existing, or now projected, appears to have been submitted to this Government; and though it is not doubted that the Government of Madras has satisfied itself on this point, some assurance regarding the sufficiency of the supply and the security of the canal now proposed from river encroachment, and some further information relating to the cost of

bridges and minor channels of distribution, would be acceptable to the Supreme Government.

10. No. 32. Statement I. The Government of India approves of this project of the "Poinay annicut channel" and will recommend it to the Honorable Court.

11. No. 47. The Estimate amounting to Company's Rupees 64,898 for repairing, improving and extending the Calingaroyen channel in the Coimbatore District is sanctioned; and as the work may be considered in the light of a renewal or restoration rather than in that of a new work, the Supreme Government will not object to the proposed expenditure of 40,000 Rupees during the current official year.

12. In my letter No. 1215, dated 22nd March 1856, the confirmation of the Supreme Government was conveyed to the advance of 30,000 Rupees ordered by the Madras Government for the work now entered as No. 1 of Statement No. I, viz., "embanking the Mahanuddee in the Ganjam District." In this letter doubts were expressed regarding the propriety of commencing a system of embankments in the Mahanuddee, and attention was directed to copies of papers connected with the subject of the abandonment of part of the embankments on the Damoodah river.

The additional information now forwarded with the project is defective. The sections run merely along the bank of the river and do not show the relative levels of these banks and of the adjacent country.

No information is given of the site of the embankments, what area of floodway they enclose between them? What volume of water is discharged by the river in highest floods; or to what extent the embankments would limit the present spread of the water? Yet on these points depend the sufficiency of the floodway and the stability of the embankments.

The Government of India must withhold its sanction to any further outlay on this project until satisfactory and full information shall have been furnished on the several points above alluded to, and until it shall be shown that the evils attendant upon the Damoodah embankments, are not likely to result in this case.

Navigation Works.

13. No. 55. Statement I, is for an "Extension of East Coast Canal," &c. &c.

Before recommending this project to the Court of Directors, the Government of India desires to be furnished with more detailed information on the following points :

1st. The canal, it is observed, passes the necks of several backwaters open to the sea and therefore affected by the tides, and it is not clear how its level can be steadily maintained unless there be a lock at each point where it enters and emerges from these Tidal Lagoons. The number and position of such locks should be distinctly shown. 2nd There is no specification of the works, and the Estimate is a very general one. Presumably, it may be an abstract of more detailed calculation that have already been well considered by the Chief Engineer; but there is no evidence, from the papers submitted, that such has been the case; and without further details, the projects cannot be recommended by the Government of India nor would it be accepted by the Honorable Court.

14. No. 54. Statement I, for the improvement of the Coast canal between Madras and Ammuncovil, appears to be essential for the perfection and maintenance of a valuable line of communication. The estimate amounting to 72,800 Rupees, is therefore sanctioned, and the work, as one of maintenance, is exempted from the prohibition on the commencement at present of new projects.

15. No. 14. Statement I, being a project for keeping open navigable communication from the Weyairoo into the Colair Lake and the Sea, is believed to be one of considerable importance; but before according their sanction to it, the Government of India desires to be furnished with a statement of the nature and extent of the expected traffic and of the probable returns.

16. No. 10. Statement I, being an Estimate amounting to Company's Rupees 57,280 for "increasing the width of, and otherwise improving the Palcole canal," is sanctioned.

17. No. 50. Statement I, project for cutting a canal from the Tuddry river to Coomptah appears to the Governor General in Council to provide for very useful objects and to be well calculated to facilitate commerce. It is therefore sanctioned at the estimated cost of Rupees

36,021. It is observed that the length of this canal is not stated, and that there is no scale to the map. On the proposition "to levy a light Toll" on boats using this canal, His Lordship in Council deems it very essential that such tolls should be imposed on this and every other canal of navigation, as will defray the cost of maintenance and afford a fair return for the outlay on the work; this is evidently the best test of the expediency of spending money on a navigable canal.

If the facilities afforded to traffic are not worth more than the cost of the work, the work itself is a loss to the nation, and ought not to have been undertaken. If they are worth more, the traffic can well afford to pay the cost and still be a gainer. A toll on a canal can be cheaply levied at very little inconvenience to any one. The attention of the Madras Government is particularly directed to these remarks.

Trunk Roads.

18. No. 29. Statement I, provides for "additional metalling to part of Trunk road No. 1;" and in reference to this proposal, it appears to the Right Honorable the Governor General in Council that for a road running parallel to a Railroad, a width of 18 feet of metalling should be sufficient. A decision upon this item is therefore suspended until the actual effect of the Railroad on the traffic of the road shall have been ascertained.

19. Six Estimates here follow, amounting in the aggregate to 3,26,723 Rupees, for parts of Trunk road No. 6, which leads from Madras to the Bengal frontier.

The orders of the Supreme Government on fragmentary or imperfect exhibitions of intended expenditure of this nature, will form the subject of a separate communication; in the meantime, on these particular cases, I am directed to convey orders as follows.

20. No. 28. Statement I, is regarded as a work standing by itself being *one* great improvement of a bad part of an existing Bridged road 113 miles long; consisting of a raised causeway with two bridges. The estimate amounting to Rupees 33,023, is therefore sanctioned.

21. No. 20. Statement I, an Estimate amounting to Company's Rupees 84,580 for constructing masonry works between Covoor and the Moodegunda river, is likewise sanctioned, and the proposed expenditure, 50,000 Rupees, during the current year approved. I am,

however, directed to observe that the designs for masonry works in this and most of the Trunk road projects, are drawn to a standard pattern without any variation to suit local peculiarities ; and in the absence of any report on the nature of the soil, the foundations appear to be somewhat deficient in depth. On this point, however, it is presumed that the Chief Engineer has satisfied himself.

22. Nos. 5, 4, 2, 3. Statement I, are regarded as parts of one scheme, viz., the continuation of the road between Madras and Cuttack, from the point where it now stops to Itchapoor, whence to Cuttack it is understood to be already made.

The General sanction of the Honorable Court will therefore be requested for these 4 projects. In the meantime, it is desirable to obtain an approximate estimate of the cost of the larger Bridges omitted from No. 2.

23. No. 21. Statement I, being an estimate for masonry works in completion of Trunk road No. 7, amounting to Company's Rupees 89,434, is duly sanctioned.

24. No. 35. Statement I, "The Bridge over the Pennaur on Trunk road No. 8," will be recommended for the approval of the Honorable Court of Directors ; but I am directed to remark, that some doubt is felt regarding the sufficiency of the foundations in the probable event of sand being found in the river bed to a greater depth than that of the substructure.

25, No. 36. Statement I, being an Estimate for the "Bridge over the Vellaur river" is sanctioned, amounting to Rupees 37,263.

26. No. 39. Statement I, an estimate for additional metalling between Oolundoorpett and Samiaveram, amounting to Company's Rs. 37,313, is also sanctioned.

27. Nos. 37, 38. Statement I, are estimates for the bridges across the Pennaur and Guddilum rivers on Trunk road No. 9, amounting respectively to Company's Rupees 46,901 and 25,869 and are both sanctioned.

28. No. 23. Statement I, the masonry works connected with Trunk road No. 11, will be recommended to the Court of Directors for approval. The remark regarding apparent deficiency of foundations, applies to the whole of the designs for these bridges.

District Roads.

29. Projects Nos. 6, 15 and 19 are all sanctioned, but I am directed to express a doubt as to the efficiency of " sand and Potter's earth" for road metalling. As the roads are represented to be important and therefore subject to heavy traffic, the additional cost of proper metal might perhaps wisely be incurred.

30. Nos. 26 and 24. Statement I, in their present shape, are essentially isolated portions of a project for one work, viz., a road from Cuddapah to Bellary. No substantial reason for treating them separately appears to exist ; and neither item is shown to be worthy of execution, otherwise than as a part of the whole line. A complete project for this whole line should be submitted ; and, in the meantime, the sanction of the Government of India to these projects is withheld.

31. No. 25. Statement I, being a project for " Bridging the Bellary and Humsagur road" is sanctioned.

32. No. 30. The Bridge over the Cooum at Dacumbode appears to be a very valuable work for local objects. It is therefore sanctioned at the estimated cost of Rupees 26,860.

33. The remainder of the District roads comprising projects Nos. 31, 33, 34, 40, 41, 42, 43, 44, 46, 48, 49, are all sanctioned.

I am, however, to point out that the wells of the Bridge over the Vigay river, project No. 43, appear rather deficient in depth ; and to suggest for consideration whether it would not be advisable to carry to a greater depth than 8 feet, the foundation cylinders of the Ambravaty bridge which it is represented will be founded on sandy soil.

Buildings.

34. No. 11. Statement I, for the proposed "Buildings for the Sapper and Miners at Dowlaiswerum" being of suitable design and necessary to carry out a measure approved by the Honorable Court, is sanctioned at a cost of Rupees 47,028 and, as proposed, the works may be carried to completion during the current year.

35. No. 27. The project for a new Hospital for the European Troops at Bellary is likewise approved, and the estimate amounting to Company's Rupees 82,330, sanctioned.

36. On the subject of No. 57, Statement I.

I am to refer you to my separate letter No. 3134 dated 4th Instant; the work, as therein stated, may be proceeded with. No. 56, for two blocks of married men's quarters at the same station, is necessarily postponed under recent orders from the Honorable Court for whose sanction however, it will be immediately and strongly recommended.

37. Of the two principal divisions of project No. 51, Statement I, for improvements to the Custom House, the 1st amounting to Company's Rupees 50,340, is generally approved; and in reference to the emergency reported in your letter No. 638, dated 23rd Ultimo, may be commenced and carried to completion at once. The projected arrangements for the new import sheds appear to be unexceptionable, but a doubt may be entertained whether the verandah on the Sea front (into which it appears that the doors of the building open), can be conveniently used as an export warehouse.

The objects contemplated in the second set of improvement, are also approved and the estimate sanctioned for execution eventually. The details of the tramway if correctly shown in the drawing, are apparently susceptible of improvement.

38. No. 52. Project for a new Civil Audit Office having been approved by the Government of Madras and appearing to be in every way a suitable structure, is duly sanctioned at the estimated cost of 37,350 Rupees.

39. Project No. 58., having been already sanctioned, would have been more correctly entered in statement No. II.

40. Statement No. II, of this Budget requires no special comment; it is perfectly regular in form and no objection is taken by the Government of India to the amounts proposed for expenditure during the current year subject to the limitation referred to in para. 3.

I am to inform you in reference to your letter No. 829, dated 30th May last that under the modified rules lately sanctioned on the 31st March 1856, by the Government of India, and forwarded to you under my Docket No. 1584, the Governor General in Council has fixed one lac of Rupees as the sum which may be disbursed by the Government of Madras on works commenced under the provisions of Rules IV and V. quoted in the communication above mentioned.

41. With regard to Statement No. 3, I am directed to remark that the way in which the repairs are therein shown is very con-

venient, but I am to point out, that the classification of works is not in accordance with that prescribed in my letter No. 1620, dated 14th September 1855, and to request that in future Budgets, this classification may be strictly observed.

42. I am further directed to remark, that the General Map which accompanies the present Budget is a very useful document and neatly executed ; it would however, have been more complete had the names of all the places and rivers referred to in your Despatch, been marked thereon. These are omissions that can readily be rectified. The other drawings and estimates illustrative of the several projects of the Budget have been nicely arranged for reference, but the selection of papers has not, in every instance, been made with equal judgment. Some cases have been encumbered with heavy Books of field surveys which are of use only to the Executive Officer, whilst others (but very few) are deficient in the necessary documents. The details of information given in your letter are very full, but scarcely in a single instance have the original Reports of Executive or Superintending Engineers been furnished. These might often be useful for reference on points regarding which your abstract raises or does not entirely remove a doubt.

43. In conclusion, and with reference to the last paragraph of your letter, I beg to state that all the papers connected with the Budget, and no longer required in this office, will be immediately returned. The annexures, however, of the projects that require to be submitted to the Court of Directors, and of some of the projects finally disposed of by the Government of India, will necessarily be detained as copies are required ; but they should be returned with as little delay as practicable.

Extract from the Minutes of Consultation under date the 12th August 1856 No. 1405.

Read the following letter from the Secretary to the Government of India.

(Here enter 11th July 1856 No. 3173.)

Para. 1. In this letter, the Government of India communicate their orders on the projects included in the Budget of this Pesidency for the current official year. The projects proposed for execution in No. 1 Statement are approved, with few exceptions, subject however to the prohibition to commence new works communicated to the Chief Engineer in an order of this Government dated May 19th 1856, No. 728, which is still to be regarded as in force. A copy of these orders will now be furnished to the Chief Engineer for his information and guidance, and his attention will be directed to the points commented upon by the Government of India.

Statement No. 1.

2. The following projects having been recommended by the Government of India to the Honorable Court of Directors, no orders can be passed on them at present.

			Rupees.
No.	45.	Annicut over the Tambrapoorney..........	3,85,000
„	17.	Southern high level channel from the Kistnah..............................	3,26,100
„	32.	Poiney Annicut channels................	1,53,283
„	4.	Road from Chicacole to Chittavalsah........	93,460
„	5.	Masonry works between Chittavalsah and Soobarum..........................	31,910
„	2.	Road from Dendagudda to Sunthoshapoorum.	46,550
„	3.	Road between Sunthoshapoorum and Chicacole..............................	37,200
„	35.	Bridge over the Pennar on Trunk road No. 8.	1,06,333
„	23.	Masonry works on Trunk road No. 11......	1,28,753
„	56.	Two blocks of married men's quarters in the Dragoon Barracks at Bangalore........	90,820
		Total...	13,99,409

3. The attention of the Chief Engineer is requested to the observations of the Government of India in respect of some of the works mentioned above, viz. the omissions noticed in para. 8 to supply designs for the aqueducts across certain streams in the project of the Kistnah Southern high level channel; the requisition in para. 22 for an approximate estimate of the cost of the larger Bridges omitted from No. 2, the road between Dendagudda and Sunthoshapoorum; and the doubts expressed in paras. 24 and 28, as to the sufficiency of the foundations of the Pennar Bridge and of the masonry works proposed on Trunk road No. 11.

4. The works sanctioned by the Government of India on their own authority are the following—

	No.		Rupees.
	No. 18.	Kistnah Annicut channel from Vullabapoorum to Tide water	1,39,700
	„ 47.	Calingaroyen channel in Coimbatore	64,898
	„ 54.	Canal betwen Madras and Ammuncovil	72,800
	„ 10.	Increasing the width of the Palcole canal, and building a lock	57,280
	„ 50.	Canal from the Tuddry river to Coompta.	36,021
Trunk Roads.	„ 28.	Works at Puningardee back water on the Northern Trunk road	33,023
	„ 20.	Masonry works beetween Covoor and Moodigunda	84,580
	„ 21.	Do. in completion of No. 7 Trunk road.	89,434
	„ 36.	Bridge over the Vellaur on Trunk road No. 8	37,263
	„ 39.	Metalling between Oolundoorpet and Samiaveram	37,313
	„ 37.	Bridge on Trunk road No. 9. over the Pennar	46,901
	„ 39.	Do. do. Guddilum	25,869
District Roads.	„ 6.	Road from Vizagapatam to Polapurty	45,750
	„ 15.	Do. Masulipatam to Ibrahimpatam	43,250
	„ 19.	Bridge over the Boogairoo	38,558
	„ 25.	Bridging the Bellary and Humpsagur road	59,250
	„ 30.	Bridge over the Cooum at Dacumbode	26,860
	„ 31.	Road from Chingleput to Taitoray	41,130

			Rs.
District Roads.	No. 33.	Road from Trivatoor to the Palaur Annicut	38,600
	„ 34.	Bridge across the Palaur at the Annicut	94,400
	„ 40.	Bridge over the Vellar, on the Southern Coast road	35,020
	„ 41.	Road from Trichinopoly to Salem boundary	50,000
	„ 42.	Do. do. via Lalgoody to join Trunk road No. 9	43,600
	„ 43.	Bridge over the Vigay river	42,200
	„ 44.	Pulkanooth and Nellacottah road	25,560
	„ 46.	Road from Palamcotta to Tuticorin	67,361
	„ 48.	Bridge over the Ambravutty	63,830
	„ 49.	Bridging the Guersapah Ghaut road	25,994
	„ 11.	Buildings for the Sappers and Miners at Dowlaishweram	47,028
	„ 27.	Hospital for European Troops at Bellary.	82,330
	„ 67.	Dragoon barracks at Bangalore	1,55,600
	„ 51.	Additions and alterations to the Custom House at Madras, and improving the external accommodation	70,040
	„ 52.	Rebuilding the Civil Audit Office	37,350
		Total	18,58,793

5. Of the above, the Government of India have made the following works, from their emergency or from their being the renewal or restoration of existing works, exceptions to the prohibitory order of the 6th May ; and have permitted them to be proceeded with, to the extent of the expenditure proposed in each case for the current year. Before giving effect to this permission however, the Governor in Council considers it necessary to examine the financial position of this Presidency ; and the Chief Engineer will forbear to take any steps for the execution of the first four of these works until he shall receive further orders from Government. The work to the Dragoon Barracks, and the improvement of the Sea Custom House at Madras, will proceed under the orders of the 31st July No. 1318 and 29th July 1856, No. 1299.

		Rs.
No. 47.	Calingaroyen channel Estimate..........	64,898
„ 54	Canal between Madras and Ammuncovil.......	72,800
„ 20.	Masonry works between Covoor and Moodigunda river..................................	84,580
„ 11.	Buildings for the Sappers and Miners at Dowlaishwerum.............................	47,028
„ 57.	Improving the Dragoon barracks at Bangalore.	1,55,600
„ 51.	(Part of) additions and alterations to the Sea Custom House	50,340
	Total..	4,75,246

6. The Government of India remark in para. 9 that project No. 18, the Kistnah Annicut channel, is not complete, inasmuch as the Bridges and minor channels of distribution yet remain to be provided. The Chief Engineer's attention is called to this and other points noticed in the same para., and he will explain with reference to the observations as to the near proximity of the channel to the river, whether there are any grounds for apprehending danger, as surmised by the Supreme Government. He will also furnish the information required as to the supply of water in the Kistnah at different seasons, to feed the existing Channels and those projected; as well as that relating to the cost of the Bridges noticed above.

7. The Government desire to call the attention of the Chief Engineer to the omissions noticed in para. 17 in respect of the Tuddry canal, and to the remarks of the Government of India on the propriety of levying Tolls on this and all other canals of navigation. The Chief Engineer will in communication with the Collector of Canara give his early consideration to the subject, and report as to the amount of Toll that should be levied on boats using this canal and the mode in which the Collections should be made; he will also consult the Collectors of Malabar and Rajahmundry in view to similar arrangements being introduced with respect to the canals in those Districts.

8. The attention of the Chief Engineer is also requested to the omissions pointed out in para. 21, and to the observation in para 29, in regard to the use of "sand and potter's earth" for road metalling. This latter remark applies only to the Masulipatam and Ibrahimpatam road, on which it was proposed to have "a coating of gravel, potter's

earth, or sand." The Chief Engineer will submit his opinion on the question of substituting metalling, furnishing at the same time an Estimate of the cost which the measure is likely to entail, in contrast with that provided for in the present Estimate.

9. The observations in para. 33 as to the insufficiency of the depth of the wells of the bridge proposed for the Vigay river demand attention; as also those recorded in para. 37 in respect of the alteration of the Custom House.

10. The following projects have neither received the sanction of the Government of India, nor have been recommended for the sanction of the Honorable Court of Directors.

			Estimate Rupees.
No.	1.	Embanking the Mahanuddee..................	64,840
,,	55.	East Coast Canal extension from the Palaur to the Pondicherry frontier..........................	3,75,000
,,	14.	Constructing locks, &c. at Yaloorpaud and Chinnacaupaveram and embankment to Weyairoo....	64,820
,,	29.	Increasing width of metalling on part of Trunk road No. 1................................	55,690
,,	24.	Completing Cuddapah and Bellary frontier road..	78,710
,,	26.	Road from Royalcherroo to Ghooty..............	31,100
		Total..	6,70,160

11. The Chief Engineer will observe that the Government of India withhold their sanction to any outlay beyond that already authorized for embanking the Mahanuddee, until the doubts expressed in Lieutenant Colonel Baker's letter of the 22nd March No. 1215, communicated to him on the 26th April last, are removed, and until some further information detailed in para. 12 is supplied. The Government request that Colonel Faber will give his early attention to the remarks of the Government of India, and besides supplying the details required by that authority, will obtain the opinion of Colonel Cotton who lately inspected the river, and submit a full and complete report in order to sanction for the whole project being obtained at an early date, if ultimately considered to be necessary.

12. The Chief Engineer will also submit the further and more detailed information called for by the Government of India, respect-

ing the project for extending the East Coast Canal from the Palaur to the Pondicherry frontier, on the points indicated in para 13; and also the information as to the probable amount of traffic and of return required in para. 15. in regard to the project for keeping open navigable communication from the Weyairoo into the Colair lake and the Sea.

13. Under the views expressed in paras. 18 and 30, the estimate No. 29 for additional metalling to part of Trunk road No. 1 between the Presidency limits and Arcot must be regarded as in abeyance; as must those numbered 26 and 24, being parts of the road from Cuddapah to Bellary. In pursuance of the instructions of the Government of India in respect of this road, the Chief Engineer will take means to submit a fresh estimate for the whole line, for entry in the ensuing Budget.

14. The Chief Engineer will be pleased to give his attention to the remarks in para. 42, and be careful hereafter to lay down in the general map to accompany the Annual Budgets, the names of all places and rivers referred to in the Engineers' Reports. He will also bear in mind the remarks relating to the selection of papers; it is unnecessary that he should send up to this Government books of survey, as was done in some cases last year, but the original reports of the local Officers should always be submitted. As accompaniments to the Budget, these Reports will need to be carefully and clearly drawn up; and it would be well to direct the attention of the Engineer Officers to the subject in time, to enable them to profit by the intimation.

15. In para. 40, it is intimated that the Government of India have fixed one lac of Rupees as the limit within which this Government are to be permitted to authorize the commencement of work in anticipation of the Budget, under the 4th and 5th of the Rules communicated in Colonel Baker's letter of the 31st March 1856. The sum allowed being so small, it will be necessary to exercise much discretion in making grants out of it. In order to lessen the applications for such emergent sanction, the Governor in Council resolves to direct the Chief Engineer to instruct Officers to be especially careful to send up in time for the Budget, all estimates for works of such a nature as to be capable of being foreseen, which are likely to be *urgently* necessary during the coming year; and with the same view of husbanding the amount available,

Communicated to the Chief Engineer in Extract Minutes Consultation 30th May 1856, No. 828.

the Chief Engineer will be enjoined to be careful, when recommending projects for such emergent sanction, to propose only such sum as there shall seem full reason to suppose may be actually spent within the current year. It will be better to ask for too little rather than too much, because in case of the grant falling short, an augmentation may be applied for.

16. Ordered that those parts of Colonel Baker's letter which relate to Military Works, being paras. 1, 2, 3, 34, 35, 36, 39, 40, be furnished to the Military Department for information; those regarding the Military Buildings transferred to the charge of the Executive in the Mysore Territory, being paras. 1, 2, 3, 36, 40, to the Commissioner; and those regarding Military Works in the Saugor Division, being para 3 and part of para. 40, to the Government of the North West Provinces. In the last two cases the parts of the Budget Statements referred to in the extracts sent, will also be communicated.

(A true Extract.)

(Signed) J. D. BOURDILLON,

Secretary to Government.

Letter from COLONEL C. E. FABER, *Chief Engineer ; to the Secretary to Government, D. P. W., dated* 11*th November* 1856, *No.* 8001.

SIR.

I have the honor to forward for the information of the Right Honorable the Governor in Council, and for submission to the Government of India, the Progress Report of Public Works for the official year 1855-56, prepared in conformity to the instructions communicated in Extract Minutes Consultation 19th June 1855, No. 274, and 26th June 1856, No. 1055.

2. With regard to the arrangement of the works, it has been found necessary still to adhere to the *local* one in order that strict correspondence may be maintained between the *Progress* Report and the *Budget* of the official year 1855-56, as required in Clause 3, para. 3 of the Resolution of the Government of India dated 18th May 1855, No. 283, A ; but with the object of presenting at the same time a classified view of the expenditure, a Synopsis has been attached, divided according to the established departmental headings ; that of "public" being subdivided into three branches, viz. "roads and communications" "general" and "political" agreeably to the instructions for that purpose laid down in para. 4 of the orders of the Government of India dated 30th May 1856, No. 2431. The state of progress of each work has also been exhibited as definitely as possible, but notwithstanding the utmost exertions made to obtain accurate information in this respect, it has been found impossible to succeed in all. Accordingly some works will be found described as being simply "in progress" when the proportion of work done has not been reported with sufficient precision.

3. The expenditure on establishment and repairs has been shown in the Synopsis along with that on original construction, the former being given in one aggregate for the whole Department, and the latter for each general heading. The expenditure on repairs has been compiled from the returns of local officers, but that of establishment from Statements furnished by the Civil Auditor and Military Auditor General, and therefore exhibits the actual sums disbursed on account of salaries and allowances.

4. After the enumeration of works included in the Budget of 1855-56, a list is appended of all those which were undertaken on emergency during the year with, or in anticipation of, the sanction of Government, as well as of all works which were omitted from the Budget of that year, in the expectation that they would have been completed before the 30th April 1855; but which had nevertheless to be carried on for periods of greater or less duration during the year. With these additions, which occupy half the report, it is believed that every new work in execution during the year, and its expenditure, have been faithfully exhibited.

5. Having made these prefatory remarks, I shall now proceed to offer a few observations on the principal headings of expenditure in the report.

6. The total expenditure of the year under all heads is Rupees 67,56,660, subdivided as follows.

	Rs.	
Civil—new works....	34,95,554	
Repairs	16,60,014	
Military—new works	6,64,800	
Repairs	1,67,873	
		59,88,241
Establishments		7,68,419
Total...		67,56,660

7. The expenditure upon Civil new works embraces the following particulars.

	Rs.
Public—roads and communications	18,64,666
„ General	1,53,867
„ Political	5,414
„ Revenue General	22,809
„ Irrigation	13,25,705
„ Judicial	64,920
„ Ecclesiastical	12,080
„ Educational	0
„ Marine	46,093
Total...	34,95,554

8. Of the amount laid out upon roads and communications, Rs.

3,00,028 are for Trunk roads, Rs. 8,69,791 for Secondary or District roads, Rs. 3,73,924 for ferries and bridges, Rs. 11,351 for Travellers' bungalows and Rs. 3,09,572 for the East Coast Canal, the exploration of the Godavery river undertaken by Lieutenant Haig, and other improvements upon canals and rivers. The outlay upon secondary roads in the present year falls short of that of the preceding year by Rupees 14,37,600. This is owing to the cessation of the necessity which existed in 1854-55 for affording employment to the starving population in Bellary and other Districts, by the return of average seasons and consequent sufficiency of food.

9. The principal Trunk roads which have been in progress during the year are No. 6 in Ganjam, Vizagapatam and Nellore, No. 7 in Guntoor and Nellore, No. 8 in Trichinopoly, No. 9 in Tanjore and South Arcot, No. 11 in Cuddapah and North Arcot, No. 12 in Bellary and No. 13 in North Arcot and Cuddapah. The entire length of road under execution was 619 miles, of which it is believed about 150 miles have been completed. In seven Districts, viz. Rajahmundry, Masulipatam, Kurnool, Chingleput, Salem, Madura and Tinnevelly, no expenditure appears to have been incurred on the construction of *Trunk roads.*

10. The most considerable *Secondary* road works were executed in Ganjam, Vizagapatam, Cuddapah, Bellary, Kurnool, Canara, North and South Arcot, Tanjore, Coimbatore and Tinnevelly. The largest bridges in progress were those across the river Palaur in North Arcot, the Poyniaur in South Arcot, the Coleroon in Tanjore, the Hindree, at Kurnool, the Kistnah at Bezoarah and the Cooum at Madras in the limits of Egmore.

11. On the improvement of internal navigation, Rs. 15,153 were spent in Nellore in pushing forward the canal from Ammuncovil to Doogoorauzepatam, and in forming a bank to shut out the sea from the north eastern corner of the Pulicat lake: Rs. 1,20,575 in Chingleput on the portion of the East Coast Canal between the Adyar and Palaur rivers, the construction of a lock and calingulah at Shediancoopum, and the improvement of the backwater, or lagoon, between Madras and Pulicat. Rs. 23,903 in Tanjore in adapting the river Munyar for navigation, in forming 8 miles of a canal from the Coleroon to the port of Trimulvassel, and in altering the course of the Umbenaur for the improvement of the Port of Tranquebar, as well as

that of the navigation of the river Veerasholagum, Rs. 6,118 were spent for similar purposes in South Arcot, Rs. 4,437 in Masulipatam, and Rs. 8,949 in Rajahmundry; but the expenditure in the two last mentioned Districts must be viewed in connection with outlays of much greater extent for purposes of navigation combined with projects of irrigation.

12. Under the head of "public general" Rs. 1,53,867 were spent viz. Rs. 19,502 in erecting a Post Office at Ongole in Nellore; in affording additional accommodation in the Lying-in-Hospital at the Presidency, &c.; in erecting a Civil Dispensary at Cocanada, and an hospital at Kurnool. Rs. 63,434 were laid out in city improvements at Madras and Kurnool, Rs. 47,877 in the construction of groins on the Madras beach, Rs. 2,540 for a similar defence to the bank of the Godavery near Ramachendrapoor, and Rs. 15,886 in Public Works of a Miscellaneous character.

13. The only expenditure under the head of "political" occurs in Madras, where Rs. 5,414 were laid out in making additions to the Government House, and executing sundry works of a petty character.

14. In the Revenue Department Rs. 5,066 were spent in the erection of buildings for Customs and Tolls at Vizagapatam, Canara, Tanjore and Madras, Rs. 3,204 on Salt Cotaurs, and Rs. 14,539 on other Revenue buildings.

15. In the Irrigation Department, the expenditure has been large in only five Districts viz., Rajahmundry where Rs. 1,09,737 have been laid out in works of irrigation and navigation in the Central Delta, Rs. 74,889, in widening, deepening and extending the Palcole channel, Rs. 14,657, in further prosecution of the Weyairoo project connected with the Godavery annicut, Rupees 23,690, in enlarging the head of the Thoolia Bagah channel; and other large sums, for increasing the capacity and usefulness of existing means of irrigation. Masulipatam, where Rupees 1,38,795 were spent on the Kistnah annicut project and Rupees 1,05,961 on a high level canal of irrigation and navigation from the Weyairoo near the Godavery annicut to Ellore, with a subsidiary channel of irrigation. Guntoor, in which Rs. 1,26,238 were spent on the works of the Kistnah annicut project connected with that District, the principal items being the excavation of the Nizampatam channel and the construction of a lock and calingulah at Doogerallah which Captain Orr the Civil Engineer reports could

not have been accomplished at any expenditure, unless he had been supplied with one of the small portable Steam Engines (3 N. P.) lately received from England. North Arcot, where Rs. 1,79,873 were disbursed in prosecution of the Palaur annicut works, Rs. 8,228 in the extension of the Cheyaur annicut project, and Rs. 15,874 on the construction of the Poiney annicut, and Tanjore where the chief item of expenditure was Rs. 99,365 on the extension of the lower Coleroon annicut, and thus adding to its efficiency as the centre of a great system of irrigation. Various irrigation works of a minor character have been executed in all the Districts which, it would occupy too much space to detail here. In Vizagapatam alone no expenditure appears under this head, except on repairs.

16. In the Judicial Department, Rupees 35,137 have been laid out in the erection of buildings for Prisons and station Police, and Rupees 29,783 in Court Houses, &c. The principal works executed are 14, Police Cutcherries in Vizagapatam, a Talook Cutcherry at Cavelly in Nellore, a large new Jail at Honore in Canara, and improvements and alterations to the Penitentiary at Madras, several Moonsiff's Court Houses were also erected in Bellary and Canara, and additions were made to the Sub Judge's Court House at Combaconum in Tanjore.

17. In the Ecclesiastical Department, the outlay during the year amounts only to Rupees 12,080, the chief items being repairs and additions to a church at Saugor, and to a burial ground at Secunderabad.

18. In the Educational Department, no expenditure appears to have been incurred on actual construction of schools or other Public Works. It is believed that no school houses, &c. were erected at the public expense during the year, but that buildings were hired for affording the necessary accommodation.

19. On Marine works, the expenditure amounts to Rupees 46,093, the principal items of outlay being the improvements to the Cocanada Harbour in Rajahmundry, extension of the Mangalore quay in Canara, and improvement of the Cuddalore harbour in South Arcot.

20. On repairs to Civil works, the expenditure has been Rupees 16,60,014, classified under the following heads.

	Rs.
Public—roads and communications.....	3,95,560
„ General.....................	53,715
„ Political...................	0

	Rs.
Revenue—General	16,988
„ Irrigation	11,71,731
Judicial	9,420
Ecclesiastical	4,765
Educational	0
Marine	7,835
Total	16,60,014

21. In the Military Department, Rupees 18,196 were laid out on defensive works and Ordnance buildings in Bellary, Salem, Madras, Hyderabad, and Saugor, and Rupees 6,00,396 in buildings for the accommodation of Troops in Bellary, Coimbatore, Malabar, Madras, Mysore, Hyderabad, Saugor and Jaulnah. Of these, the most important are the construction of exterior verandahs to the nine ranges of European Infantry barracks at Bellary ; that of European Infantry barracks at Jackatalla on the Neilgherries, on which Rupees 1,20,077 were spent during the year. The new barracks at Tirmulgherry near Secunderabad have cost Rupees 2,13,173, the Hospital, Rs. 46,339, and the married men's quarters, Rupees 83,420 during the year, besides other subsidiary works on which heavy outlays have been incurred : Rupees 49,898 have been laid out at Madras, in building lines for a Regiment of Native Infantry at Perambore ; in raising the roof of the Parcherry barracks in Fort St. George ; and on other works of a minor character.

22. Upon stud and Commissariat buildings, the expenditure has been only Rupees 2,369, the works not being of sufficient importance to require detailed notice.

23. Upon Cantonment roads and clearance, no expenditure has been exhibited, as it is believed that no new works coming under that head have been executed during the year.

24. Under the head of Miscellaneous, an expenditure of Rupees 43,839 appears. This comprises items which could not well be classed under any of the foregoing heads, such as the annicut across the Adyar river for Artillery and pontoon exercise, entered among the additional works of Chingleput ; converting the lock Hospital at Saugor into an Engineer's yard, &c.

25. On repairs the total expenditure during the year in the Military Department was Rupees 1,67,873.

26. Having thus briefly reviewed the principal items of expenditure during the past official year, I shall now proceed to touch upon other points adverted to in Lieutenant Colonel Baker's several communications.

27. In para. 13 of the letter dated 26th June 1856, No. 2431, the Government of India require that a special statement should be attached to the Annual Progress Reports, showing in a Tabular form, the really great works of the country, the estimates sanctioned for them, the amount previously expended and the amount expended in the year. These orders have now been complied with. The statement is divided into two portions, one of which shows the completed works, and the other, those in progress. Although the instructions of the Government of India seemed to extend to works of the latter description, only it has been thought advisable on this, the first occasion of the preparation of such a statement, to include in it all the finished great works of importance, on which information could be collected from the Records of the Central Office of P. W.; future returns will include only works *in progress*, so that with the one now submitted they will form a complete record of all the great works of the Presidency.

28. An attempt has also been made on the present occasion to supply a statement of the financial results of remunerative works, which although imperfect, will I trust meet the approbation of Government. The first and most important works deserving notice, is the Godavery annicut, a project which has exercised a highly beneficial influence on the prosperity of the Rajahmundry District. Previous to the commencement of this system of irrigation, the revenue of the District derived from an average of 15 years, amounted to Rupees 19,93,629, since its construction, the average revenue derived from the results of 10 years, amounts to Rs. 24,39,115. Thus there has been an annual increase of Rs. 4,45,486, which for the period from 1846 to the present time has yielded a clear surplus above the previous quinquennial standard of 44,54,860 Rupees. The entire expenditure on public works during the last decennial period including repairs, is Rupees 30,97,026, so that deducting this from the surplus abovementioned, the Government have a clear gain of Rs. 13,57,834 after paying all expenses. The annual per-centage of profit upon the outlay is 14·4,

but while this is the gain to the State alone the benefit derived by the people from the expenditure of so much money in the District, and from the supply of an abundance of water for all purposes is beyond calculation, and has shown itself in the rapid increase of the trade of the District and in the generally prosperous condition of its inhabitants, which is evinced further in the large and steady increase of prices of labour and materials.

29. The Kistnah annicut having come into operation only last year, it is yet too soon to speak of its results, but it has already conferred great benefit on the country immediately subject to its influence. Notwithstanding the drought which prevailed in the past year, and the failure of the wet cultivation in the Talooks not connected with the annicut, the cultivation of those tracts which have enjoyed the advantage of the waters supplied by it, has gone on uninterruptedly. In the Goodewadah Talook of Masulipatam, an immense crop of paddy was raised, and although no great addition accrued to the revenue, the gain to the Ryots has been considerable, and the gross value of the produce due to the annicut in that Talook has been estimated at 5 lacs of Rupees. In the Ponnoor and Bauputlah Talooks of Guntoor which are already in a great measure subject to the influence of the annicut, the revenue in Fusly 1265 amounted to Rupees 47,438 and Rupees 63,563 respectively being about 10,000 Rupees in each case above the highest revenue of the preceding 10 years, and Rupees 18,000 above the average revenue. On the contrary, in the Reypully Talook which as yet is beyond the reach of the annicut, the adversity of the season was clearly exhibited by the falling off of the revenue about 22,000 Rupees below the maximum of the antecedent 10 years, and Rupees 13,000 below its *average*. It is therefore obvious that the annicut has not only saved the revenue of the Talooks dependent on it, but has added about 40,000 Rupees to the public income independently of the benefits to the people which must be considerable. This gives a profit of only 3·3 per cent. on the outlay, but there is no doubt that this proportion will rapidly increase, as the new system of irrigation depending on the Kistnah annicut becomes more and more fully developed.

30. The amount expended on the Pennar Annicut including repairs is, 93,860 Rupees. The wier was brought to completion on the 15th August 1855, but owing to the distributive details not having

been matured, it has not hitherto proved of commensurate service; but so far as it has been in operation, it has exercised a highly beneficial effect on the revenues of the old ducts of irrigation. Under the Jaffer Sahib channel alone, an increase of 19,080 Rupees has taken place, on the average of the preceding five years, besides a sum of Rupees 13,593, realized from the lands of certain villages* which have lain waste since they were deprived of their usual means of irrigation, by the devastating floods of 1852. The proportion of merely this imperfect return to the cost of the annicut is already 20·3 per cent. a ratio, which it is believed will greatly increase, when all the subsidiary channels have been executed, and when the new permanent character of a supply hitherto uncertain, has inspired the landholders with confidence and enterprize.

* Gungapatam.
Moodcourty polliam.
Poonoor.
Comeratta.
Mypaud.

31. It will be seen from an examination of the Statement, that upon the lower Coleroon annicut in South Arcot and its dependant works, a yearly return of 20·5 per cent. is realized. Upon the Vellaur annicut (even previous to the restoration only just completed) the return is 11·9 per cent. Upon the upper Coleroon annicut with the regulating dam across the head of the Cauvery in Tanjore, the increase is 53·6 per cent. Upon the Meratoor annicut, the return has been 42·8 per cent.; and upon the section of the Coast Canal, north of Madras, (Cochrane's Canal) the net receipts on the reduced fares, have amounted, after defraying the charges for repairs and establishments, to Rs. 12,727 during the almost unfavorable and dry season of 1855-56.

32. Some few tanks are included in the Statement, but I have to acknowledge with sincere regret that as yet there is an entire omission of most of the annicut and superb reservoirs of the country, on which the general irrigation system of the Southern Presidency is chiefly founded. The information given, although much scantier than I had hoped, will however fully enable the Government to observe the beneficial results of even small outlay upon works of irrigation, and to notice how readily and quickly for the most part, when water is supplied, the Ryots avail themselves of the supply, and either convert their dry crops into wet, or bring fresh land under the plough.

33. I have now to report upon the Officers of the Department of

Public Works, who have distinguished themselves by good service during the past year; and in doing so, I have first to thankfully acknowledge the valuable assistance afforded me during the year by my own associates of the Central Office, Major Lawford, Lieut. Colonel F. C. Cotton, and Captain G. C. Collyer, the Superintending Engineers respectively, of the Southern, Northern, and Central Circles of Public Works. It should not be omitted that the transfer of the ministerial functions of an office of Public Works from the Board of Revenue to an exclusively professional department took place on the 1st August 1855, and that the fusion into one Central Office, of the three separate authorities (the Military Board, the Revenue Board, and the Superintendent of Trunk Roads) previously entrusted with the conduct of different branches of expenditure, has not been accomplished without encountering the many substantial difficulties and inconveniences almost inevitably attendant on a change of system so sweeping and radical as that which, with whatever degree of failure or success, has been introduced during the period under report, and is now with an office establishment of purely experimental and tentative strength (amounting altogether to Rupees 6,836 per mensem, being Rupees 3,760 per mensem less than that for the Lower Provinces in Bengal) in full, if defective, practical operation.

34. Amongst the District Engineers and Officers having separate executive charges, I consider Captains F. H. Rundall and C. A. Orr, District Engineers of the Godavery and Kistnah Divisions, and Captain C. C. Johnstone, late Superintendent of Trunk roads, District Engineer of North Arcot, and now Acting Superintending Engineer of the Northern Circle entitled to much praise. Captain Johnstone, had the sole executive charge of North Arcot, under the new system, since the 1st October 1855, and has introduced a method of account with his subordinate Officers as well as of executive operations most creditable to his habits of business and experience. Lieutenant F. T. Haig, Civil Engineer Upper Godavery, Lieutenants G. W. Walker and T. E. Gahagan, District Engineers of Bellary and Salem, and Lieutenant O. W. S. Chambers, Superintendent East Coast Canal are deserving of honorable mention for ability, zeal and great personal assiduity in the discharge of their respective duties. Captain Francis, District Engineer of Coimbatore also has merited and received the special approbation of Government, for the promptitude and

skill with which executed a successful preliminary survey of a new Ghaut with gradients practicable for carts, connecting the Neilgherry Hills with the District of Malabar; and he has otherwise exhibited professional acquirements of a very valuable description. The whole of the District Engineers have indeed entitled themselves to great praise for the able and efficient management of their Districts during the past year, notwithstanding the great difficulty they have laboured under from not being provided with adequate office establishments at any period of the year; and when it is known that up to the 30th April last, there was not a single Accountant in the Mofussil offices and that in half of them there was only a single copyist or clerk, the wonder is not that the present accounts have been deferred to the late date of November for May, but that they have been prepared and submitted so early.

35. It also has been during the year 1855-56 that the former unmanageably extensive Divisional charges administered by Civil Engineers (with a single exception not likely to be of prolonged continuance) have been subdivided into professional Districts corresponding in size and denomination with the Revenue Collectorates, and this important change with the separation of records has occupied a great deal of the time and attention of the Members of the Department in purely office arrangements and details, to the unavoidable interference with the Executive duties of the newly constituted Districts. Yet, great as the foregoing change practically is, and extensive as is the improvement secured by the smaller ranges of duty, the alteration already partly effected and in course of general accomplishment throughout the Presidency, of withdrawing the Executive from the Revenue Officers of each Collectorate, and of making the professional department the sole Agency of Public Works, is a far more radical and important reform. The two causes above mentioned have exercised no small influence during the past year on the general progress of the Madras Department of Public Works, but as it will be during the season now current of 1856-57 that the effects of the changes (and especially of the interdict of 19th May last on the prosecution of all new works of greater cost than 10,000 Rupees) will be more fully apparent and influential, it does not seem necessary to pursue this topic further at present, having already stated sufficient to show the abnormal condition of the Madras P. W.,

in the period that has elapsed since the submission of the last annual Report.

36. Amongst the subordinate or Assistant Engineers, I have to name the following officers as having distinguished themselves by skill and accuracy in design, or by vigour and economy in the prosecution of the works placed under their charge, viz.

Ganjam District.

Lieut. Harrington.
Lieut. W. C. Palmer.

Lieutenant Harrington, Acting 1st Assistant Civil Engineer, for his suggestion and survey of the alternative line of new road from Aska to Russelcondah (approved by Government) and for the marked zeal and intelligence displayed in the preparation of his reports generally, and Lieut. W. C. Palmer, 2nd Assistant Civil Engineer for his supervision and successful completion of the large bridge over the Nagolea near Chicacole.

Godavery Division.

Capt. J. F. Stoddard.
Lieut. D. McNeil.
Mr. F. L. Moncrieff.
Mr. J. Rundall.
Mr. H. B. Smith.
J. Atchoota Naidoo.

Captain J. F. Stoddard, 1st Assistant Civil Engineer, for energy and diligence in the character and extent of work performed under his supervision, Lieutenant D. McNeil, 2nd Assistant Civil Engineer, for the uniformly careful execution and finished appearance of all his works, Mr. F. L. Moncrieff, Covenanted Civil Engineer, for the great improvements effected by his mechanical talents and zeal in the foundry and Smith's work in the Dowlaishwaram workshops. Mr. J. Rundall for his successful arrangements for economizing and distributing the supply of water in the dry season throughout the range under his sole care. Mr. H. B. Smith for vigorous prosecution of the works of the Ellore canal and J. Atchoota Naidoo, late Marahmut Superintendent, for ability in designing and executing a temporary wooden aqueduct, by which a sufficient and uninterrupted supply was kept up when the extensive repairs and additions of the Nuggarum aqueduct were under execution.

Kistnah Division.

Captain D. G. Pollard, late Acting 1st Assistant Civil Engineer, for his industry and application on the works of the Nizampatam channel, and Captain Crewe, 2nd Assistant Civil Engineer, for his exertions and success in getting in the foundations of the new lock at Doogerallah, where with the assistance of Mr. Sage, Uncovenanted Assistant, a three horse power Steam Engine was set up with large fly wheel to work the pumps, without which the operation must have failed.

Capt. D. G. Pollard.
Captain Crewe.

In North Arcot.

Captain Barber, Lieut. J. O. Mayne, Messrs. J. H Dopping and F. H. Bush have distinguished themselves by the ability displayed in designing and executing sundry works confided to their management and control.

Captain Barber.
Lieut. J. O. Mayne.
Mr. J. H. Dopping.
Mr. F. H. Bush.

In Salem.

Lieutenant J. Puckle, deserves mention for the able and energetic manner in which he traced the Shervaroy Hill Ghaut roads ; and Mooneyappah, Talook Maistry, for the construction of the Tala-vassel annicut in a highly satisfactory manner.

Lieut. J. Puckle.
Mooneyappah Maistry.

In Coimbatore.

Lieutenant J. H. M. Shaw Stewart, has carried on with skill and resource some works of considerable difficulty on the Neilgherry Hills, and has also shown quickness and accuracy in preparing the designs required for several works of importance to the community at that station.

Lt.J.H.M.S.Stewart.

Lieutenant Chrystie, of the Engineers, 2nd Assistant Civil Engineer, has also shown much ability and zeal in his completion of the Suttimungalum bridge over the deep and rapid stream of the Bowani.

Lieut. W. Chrystie.

In Madras.

Captain H. W. Rawlins has exhibited his habitual energy and application in the execution and

Capt. H.W.Rawlins.

completion of the groins of rough stone on the beach; and upon the

Adyar and Palaur canal.

Mr. R. Kennedy.

Mr. C. Konig.

Mr. R. Kennedy, Uncovenanted Assistant Civil Engineer, has been remarkable for the superior quality and high finish of his work, also for skill in design and for complete success in execution; whilst Mr. C. Konig, Uncovenanted Executive Officer, who recently completed the new lock and swung the gates at Shediencoopum, has built the waste wier and excavated the new cut with a vigour and economy, which Lieutenant Chambers, the Superintendent, attributes to the great personal exertions of the Executive Officer, and which have resulted in cheaper rates than on any other section of the East Coast canal.

37. In conclusion, I have to sincerely regret the delay which has taken place in the submission of this report, but in addition to causes already assigned, this is mainly owing to the difficulty with which correct returns of expenditure have been obtained from the local officers, many of whom (see para. 34) have only recently been placed in charge of their present Districts; and in some cases, the newly appointed officers have had not only to make themselves acquainted with the public works and localities generally of their Districts, but whilst themselves, unfamiliar with the previous management of an office, they have had to conduct a more or less extensive correspondence and to introduce a system of new forms of accounts under instructions for the observance of unfailing punctuality; and this they have had to do, without the assistance of experienced Accountants and of ready copyists, and at a time too, when the prosecution of their own outdoor avocations, can have left them little or no leisure for the personal performance of the details of the duties of their offices. New and enlarged establishments having, however, been lately authorized by Government, not only to each District office, but also on a scale graduated to the actual requirements, to each member of the Department, I hope that the future annual reports from the Central office will require no apologies for delay, as on the present occasion, when the indulgent consideration of the Government of India has unavoidably to be solicited, but that the accounts of expenditure in the Madras D. P. W., will be marked not only by the accuracy of their prepara-

tion, but by the uniform regularity of their timely submission to Government.

P. S.—Barrack furniture never having been supplied by the Department Public Works in this Presidency, no expenditure thereon has been entered in the Progress Report.

I have &c.

(Signed) C. E. FABER, *Col.*

Chief Engineer.

Report of progress during the year 1855-56, *Execution of projects of* 1855-56 *of the Madras Presidency for the sanctioned on the* 1st *June* 1855

Description of Work.	Estimated total cost.
1	2
RAJAHMUNDRY.	Rs.
Samulcottah and Toonee canal..	2,34,304
Samulcottah and Cocanada..	1,17,339
Junction canal across the Delta from Mogultoor to Cocanada	1,22,357
Works of Irrigation and Navigation in the Central Delta of Rajahmundry......	3,15,932
Improvement of Coringa Harbour........	62,838
Cocanada Harbour improvement........	84,639
Total Rajahmundry..	9,37,409
MASULIPATAM AND GUNTOOR.	
Bridge over the Annicut across the Kistna River at Bezoarah........	1,99,931
MASULIPATAM.	
High level channel from the Boodoomair to Perikeed	79,550
Road from Perikeed to Dendaloor...	1,34,835
Road from the Poolairoo near Weyoor to the canal Basin at Masulipatam..	2,37,107
Total Masulipatam..	4,51,492

enumerated in Statement No. 1 *of the Public Works Budget same year, submitted on the* 30*th March* 1855, *and dated Madras* 11*th November* 1856.

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
0	3,000	These works were commenced by the Civil Engineer in anticipation of sanction, but suspended, vide letter from the Government of India dated 26th January 1855, No. 98. Recommended to the Honorable Court.
0	56,000	
0	0	Recommended to Do.
1,09,737	1,16,731	1 Calingula 2 Locks finished; 12 miles of canal to Folwalah opened; 20 miles of branch channel and 4 miles of Amalapore main excavated.
22,020	38,743	Earthwork only commenced materials for raising Light House prepared—Labor for excavating channel is very scarce in the neighbourhood of Coringa and also very expensive, this together with the want of an Officer for Superintendence has delayed this work so much. North Grain constructed 450 yards, materials for new Light House collected.
1,31,757	1,55,474	
93,526	93,526	About half the timber required has been purchased and the Iron work ordered from England all ready and waiting for shipment.
0	0	Recommended to the Honorable Court.
0	0	Do.
0	0	Do.
0	0	

Description of Work.	Estimated total cost.
1	2
GUNTOOR.	Rs.
High level Channel from the Toongabudra near the Kistna Annicut to the Southern part of the Guntoor District to Inganampadu....	1,46,787
CUDDAPAH.	
Road between Cuddapah and Madras as far as Poonamallee. Estimate in Cuddapah....	1,28,237
NORTH ARCOT AND CHINGLEPUT.	
Estimate in South Arcot.. 53,018	
Do. in Chingleput.... 10,966	63,984
MALABAR.	
Improving the Paulghaut and Trichoor Road, constructing two bridges upon it, and forming two Branch Roads in connection with it......	49,061
Road from Calicut by Beypoor, Condotty, Malapooram, Angadipooram, and Manar to Mundoor on Trunk Road to Paulghaut..	52,083
Total Malabar..	1,01,144
NELLORE.	
Extension of the East Coast Canal from Doogarauzepatam to the Rampairoo River commonly called the Kistnapatam Backwater . .	1,39,665
CANARA.	
Yellapoor, Seercee, and Halandee Road Circuits........	34,996
NIZAM'S DOMINION AND NAGPORE TERRITORY.	
Operations for opening the Navigation of the Upper Godavery........	1,00,000
SOUTH ARCOT.	
Bridge over the Ponyar River on the Southern Coast Road immediately north of Cuddalore......	50,000
KURNOOL.	
Bridge across the River Hindree at Kurnool	30,744

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
0	0	Recommended to the Honorable Court.
0	0	Postponed in reference to the Railway question now under consideration.
0	0	Do. do. do.
4,070	4,070	A large quantity of bricks have been made and burnt; but the work has been stopped in pursuance of an order from the Government of India.
13,400	13,400	Impeded by the Monsoon at present.
17,470	17,470	
0	0	Recommended to the Honoraole Court.
0	0	Not commenced, the former Sanction entered in Budget No. 2 being unexpended.
0	0	Not allowed.
13,454	13,454	Two-thirds of the foundation and flooring laid.
9,509	9,509	Foundations of Northern abutment and Nos. 1, 2, 3 and 4 piers built and the cut stone of the abutment and No 1, 2 and 3 piers built up to ⅔ of the proper height above foundation. Excavation made for several more foundations. Materials being collected and a few well bricks made.

Description of Work.	Estimated total cost.
1	2
TANJORE AND SOUTH ARCOT.	
Bridge over the Coleroon on the Southern Road between Chillumbrum and Sheally.... .... Estimate .... Rupees 1,30,000 Deduct sanctioned from Pagoda Funds..... 92,000	38,000
BELLARY.	
Annicut across the Huggry near Yeparal for the benefit of the Carracal and Streedergutta Tank, &c.........	1,13,841
RAJAHMUNDRY.	
Completing and strengthening the flooring of Nagarum Aqueduct in the District of Rajahmundry.	36,112
MADRAS.	
For the construction of stone Groins near Clive's Battery....	43,037
CHINGLEPUT.	
Adyar and Palaur Canal......	2,21,873
Total Rupees. ..	28,37,251

Central Office of Public Works,
Fort St. George, 11*th November* 1856.

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
38,000	38,000	Out of 40 Arches 22 were completed and the rest constructed up to springing. Rupees 66,505 were spent also on this work out of Pagoda Funds.
0	0	Postponed for mature consideration.
38,931	38,931	Completed in June 1855.
5,679	5,679	In progress; two groins constructed opposite Terminus and the road is being widened from Battery to Terminus and Town of Royapooram.
98,026	98,026	About 15 miles of Canal completed and 15 more in various stages of progress, the amount of Earthwork removed during the season being 12,06,041 cubic yards, one Masonry Bridge built up to the springing of the Arch and the woodwork of a lattice bridge prepared. Materials collected, ferry boats built.
4,46,352	4,70,069	

(Signed) C. E. FABER, Colonel,
Chief Engineer.

Report of progress during the year 1855-56. *Execution of Budget of that year of the Madras Presidency for and sanctioned on the*

Description of Work.	Estimated total cost.
1	2
DISTRICT WORKS, *viz.* HYDRAULIC WORKS, ROADS AND CIVIL BUILDINGS.	Rs.
GANJAM.	
Road from Polcondah to Chintadah with branches from Chintadah to Calingapatam and Chicacole......	41,452
Road from Poondy towards Purla Kimedy....	20,675
Road from Maripam towards Purla Kimedy....	25,259
Berhampore and Russelcondah Road......	1,42,246
Russelcondah and Koinjoroo Road........	28,700
Total Ganjam ...	2,58,332
VIZAGAPATAM.	
Custom House at the port of Bimlipatam..	2,986

projects enumerated in Statements No. 2 of the Public Works the same year, submitted on the 30th March 1855, 1*st June* 1855.

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
20,822	27,080	Earthwork completed entire distance 36½ miles; 107 small bridges and tunnels built, 5 remaining only to be constructed. 2½ miles metalled.
9,798	14,966	Earthwork completed 10 miles; 24 small masonry works built, Gravel being collected.
4,465	6,437	Earthwork completed 7½ miles, all (20) masonry works built and 4 miles metalled.
32,786	1,13,845	From Berhampore to Aska distance 25 miles Earthwork completed, metalled and gravelled. 67 small masonry works built, 2 large Bridges and 7 Tunnels to be built to complete the line. The Injelly Bridge 3-4ths done, and 44,000 cubic feet of masonry built. The Aska Bridge more than half done, 53,000 cubic feet of masonry built. From Aska to Russelcondah 20 miles road formed, metalling and gravel being collected. The line from Aska to Russelcondah as first proposed has since been reported on as unadvisable owing to its having been taken through a low part of country and liable to be flooded. Another route has been suggested and has been lately sanctioned. Supplementary estimates will be forwarded for both the Injelly and Aska bridges.
695	14,241	26 miles jungle cleared; 20 miles Road formed; 1½ metalled, 8 miles gravelled; 16 drains built, as also 18 temporary wooden bridges. Work stopped since May 1855, and a reference made regarding the formation of another line by the Coorminghee Ghaut in its stead.
68,566	1,76,569	
1,195	1,195	The foundations of the walls built.

Description of Work.	Estimated total cost.
1	2
	Rs.
VIZAGAPATAM.—(*Continued.*)	
Road from Parvattipore to Polcondah..	
Road from Madgole to Annakapilly......	
Road from Golcondah to Nursapatam	
Road from Nursapatam to Thalapaliem......	66,500
Road from the Ferry towards Punchadarla......	
Road from Parvattipore to the Bobbily Zemindar's Territory..	
Road from Polcondah to Chiperpully, Superintendence for 1 year	15,525
14 Police Cutcherries in the District..	16,814
Road from Tauttimurty to Jeypore......	10,000
Do. from Parvattipore to Jeypore..	
Bridges, &c. on Polcondah and Chipurpully Road....	20,743
Bridges on Polcondah, Parvattipore, and Bobbily Road....	15,560
Superintendence for boths Roads......	5,175
Total Vizagapatam....	1,53,303
RAJAHMUNDRY.	
Library at Dowlaishwaram for the use of the Subordinates of the Engineer Department........	4,317
Completing Coringa Channel...... ....,	9,774
District Moonsiff's Court Houses at Rajahmundry and Cocanada..	2,407
Widening and extending the Palcole Channel.....	1,13,199
Steam dredge for deepening Coringa Bar and working the same for one year...	36,000
Culvert under Yanam Channel...	611
Seamen's Hospital at Cocanada....	3,979
Total Rajahmundry....	1,70,287

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
		Earthwork completed and a small quantity metalled, and gravelled, bridges in progress.
		Earthwork with the exception of about 2 miles completed; metal and gravel collected in considerable quantities, the road is unbridged, and the channel banks are unsloped.
		Jungle cleared the whole length; about 3 miles made from Nursipatam to the river.
30,612	74,545	Road laid out; earthwork completed, metalled and gravelled for 10 miles, unbridged and banks unsloped. Estimates for completing these roads will be submitted shortly.
		8 miles completed, a considerable distance is completed in portions and metal and gravel are collected, the worst parts are unbridged. A further estimate for Rupees 45,750 is included in the budget for 1856 57.
		Earthwork done.
0	0	Earthwork completed and a small quantity metalled and gravelled, bridges in progress.
5,381	5,381	The walls up to about 3 or 4 feet of all the Cutcherries have been built.
7,923	7,923	Work stopped. The balance in hand being wholly insufficient for the purpose of making some miles of Ghaut.
5,485	11,221	Many of the most necessary bridges are completed and the remaining work is in progress.
7,059	8,370	
3,183	4,025	
59,838	1,12,660	
1,428	1,428	Building finished in April 1856.
8,949	8,949	Lock completed as also excavation of the Canal in April 1856.
60	60	Materials collecting.
39,325	1,13,199	Further expenditure entered opposite the Supplemental Estimate for this work at the foot of this Statement.
0	0	No money yet remitted on this account, the Paumben dredge has been doing the work. The Civil Engineer states that he was doubtful as to the best form of dredge and also of the parties to whom to apply to for the machine, but that he is now making arrangements for its transmission to this country. This has been cancelled by Government in Extract Minutes of Consultations 5th September 1856.
0	0	Not commenced.
3,437	3,437	Completed all but a small portion of the roof.
63,189	1,27,063	

Description of Work.	Estimated total cost.
1	2
	Rs.
MASULIPATAM.	
New Traveller's Bungalow at Besorah....	1,958
Road from Ibrahimpatam to the Nizam's frontier......	55,833
Canal of Irrigation and Navigation from the Weyairoo near the Godavery Annicut to Ellore with a Subsidiary Channel of Irrigation... ...	2,87,644
Kistnah Annicut project (portion)....	7,66,414
Total Masulipatam......	11,11,849
GUNTOOR.	
Flood bank for Kadavacoodara....	704

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
0	0	Not commenced. The ground for this building having been obtained in January last, its erection was then about to be commenced when the Collector strongly pointed out the inadequacy of the accommodation which it would afford and recommended the submission again to Government of a plan and estimate for a first Class Bungalow.
12,887	12,887	Eight miles of road have been formed and metalled; 5 new tunnels built, 14 old tunnels repaired, and the foundations, abutments, wing walls, and counterfeits of a Bridge of 30 feet span built up to springing. Owing to the difficulty of collecting labourers the progress of this important line of road was much retarded.
1,05,961	1,22,575	Abutments, Piers, flooring, and wing walls to 1 aqueduct over Yerra Calwah completed, 30 miles of Canal excavated 1 yard deep 30, yards broad throughout. Annicut completed 31st March 1856. Cutting to connect the Annicut with the Poolairoo Channel completed, widening and deepening the Boodoomair Channel to Casarapilly completed.
1,38,795	6,49,930	Widening and deepening the Poolairoo Channel from Patamata to Weyoor completed. Bridge across the Boodoomair completed. Five cargo boats for the Delta works completed. Diversion of the old Boodoomair and constructing aqueduct to carry over it the Ellore High level channel completed. Mopedavy Channel in progress, 7 miles excavated. The Calingulah at Cunkypaud is nearly completed and the Lock floor, lower silt, and about half of the side walls have been built. Delay occasioned by the removal of many of the workmen to the more pressing duty of opening the Channels required for the extension of Irrigation from the Annicut The progress of these works was interrupted for some time by the silting of a part of the Channel putting a stop to the transport of materials by boats, but on the deposit being removed, building operations were resumed and made fair advancement.
2,57,643	7,85,392	
658	658	Nearly completed.

Description of Work.	Estimated total cost.
1	2
GUNTOOR.—(*Continued*)	Rs.
Kistnah Annicut project (portion)....	6,81,630
Boats for Kistnah River.....	3,000
Total Guntoor......	6,85,334
NELLORE.	
Supplemental Estimate for completing the Bridge across the Beerapairoo near Sungum....	6,827
Improving water communication between Nellore and Goodoor.....	14,000
Sundry Irrigation works in Ravoor Talook......	1,401
Ridge Ventilators, &c. to the Nellore Jail..	2,189
Restoration of the Vulapurla Tank in Chendaloor Talook....	459
Portion of Supplemental Estimate for Chinnoor and Kistnapatam Road.	71,000
Pennar Annicut........	95,050
63 Miles of the Cummum Road District......	54,783 }
Superintendence	4 000 }
Removing old Jail and building on its site new wards.	6,400
Open sheds for witnesses, &c., near Zillah Court House at Nellore.......	360
A new Terraced Room for the Nauzer at Nellore.	518
Forming a bank to shut out the sea from the north eastern corner of the Pulicat Lake....	4,635
Total Nellore....	2,61,572
CUDDAPAH.	
Portion of Supplemental Estimates for Chinnoor and Kistnapatam Road	39,000
BELLARY.	
Travellers' Bungalows at Yettemhutty and Coortuny	4,003

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
1,24,881	5,79,546	Annicut completed. Deepening the Toongabudra Channel as far as Kidlapoody completed; 5 cargo Boats completed; Vallavapoorum Channel completed; 24 miles of the Nizampatam Channel have been excavated; and the lock and Calingulah at Doogerallah are in a fair state of advancement, the latter all but completed. The construction of the lock at Doogerallah was delayed by the suspension of operations during the harvest when labor was scarce, and by the presence of an extraordinary quantity of water in the sand forming the sub soil, causing immense difficulty in getting the foundations down.
1,400	1,400	Completion delayed by the failure of the contractors, but the Civil Engineer is building them.
1,26,939	5,81,604	
4,044	7,255	Completed.
0	0	Not commenced yet.
1,501	1,501	Completed 31st December 1855.
2,227	2,227	Completed 28th February 1856.
458	458	Completed 9th October 1855.
12,554	71,000	Completed. This line is continued in the Cuddapah District and the expenditure is entered opposite the sum of Rupees 39,000.
17,141	89,494	Completed.
0	58,783	From Ongole to the west the Road is practicable for Bandies for nearly the whole distance, and to the east of Ongole about 4 miles have been formed. See further expenditure on the same line amongst the additional works in Cuddapah.
0	0	The original plan not having been approved of by the Inspector of Prisons, the Civil Engineer intimated that a fresh one would be prepared, the project however is in abeyance.
360	360	Completed 2nd January 1856.
518	518	Completed 5th October 1855.
4,284	4,284	Completed 31st March 1856.
43,087	2,35,880	
22,518	27,402	This work is progressing very satisfactorily, about 10 miles are metalled, the remainder levelled and jungle cleared. This road is a continuation of the one in Nellore at an estimated cost of Rs. 71,000.
0	0	

Description of Work.	Estimated total cost.
1	2
BELLARY.—(*Continued.*)	Rs.
Soldiers' shed at Yettemhutty......	1,072
Travellers' Bungalows at Guarladinna, Paudee and Paipully..	6,005
Bussawanah Calwa works..	4,512
Raya Calwa works	5,473
Bella Calwa works......	3,606
Superintendence 6 months....	1,680
Moonsiff's Court Houses at Bellary....	1,611
Naraindowerkerra....	1,611
Taudmurry and	1,611
Adony....	1,611
Wuddoocuttahs or Dams for the protection of Villages from inundation at Commerchade and Boocherla....	130

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
3,389	3,389	Walls up, plastering still to be done. Wood work for the roof to the Yettemhutty Bungalow remains to be done. There has been great delay on the Bungalows and soldiers' shed in consequence of the contractor not having supplied wood in sufficient quantities. Contractor under stoppages of 50 Rs. per week.
2,131	2,131	*Guarladinna Bungalow.* Masonry works in progress; woodwork of roof nearly ready. *Paudee Bungalow.* Walls in progress and woodwork of roof well advanced. *Paipully Bungalow.* Masonry and woodwork are in progress. Considerable delay was by the difficulty of selecting a good site.
3,491	3,491	Foundations have been laid and piers, &c. are finished of all but two Bridges. The head sluice is raised 4½ feet more than the estimate to correspond with the highest flood. and also the foundations of abutments, &c. have been laid to construct an arched Bridge of 30 feet span on the southern approach to let a jungle stream into the Channel above the sluice. The extra cost will come to about 1,000 Rupees. but it will be covered by other savings. On account of insufficient estimate the work of Mookurty surplus Channel and 2 branch Channels have been stopped.
3,444	3,444	Foundations have been laid and piers, &c. are finished of the buildings, and the Aqueduct is quite completed, also the construction of front wall and 2 under sluices finished. The head sluice is constructed with Brick in Chunam, there being difficulty in procuring burnt stones as per estimate. The construction of under sluices in Cooloo and Mookarty Wuddoo are not commenced on account of insufficient estimate.
1,794	1,794	Foundations have been laid and piers of all the Bridges are finished, and the Aqueducts are quite completed. The Bussavanah Bridge in the Hoolgee road is converted into an arched Bridge of 20 feet span for which the abutments, &c. are finished and 2 Aqueducts are cancelled by turning the water into one.
1,671	1,671	
1,611	1,611	Completed 26th February 1856.
1,448	1,448	Completed 31st January 1856.
1,025	1,025	Ready for the roof whereof the woodwork is completed. Delayed for want of Carriage for the woodwork from Wullabapoor where it was made up.
1,166	1,166	Roof being put up. Work given out on contract. Extra foundations had to be allowed and paid for extra. Want of timber caused delay.
110	110	The Commerchade Wuddoocuttah is in progress. Boocherla Wuddoocuttah completed on the 30th April 1856. This work was delayed for want of Wudders Carts, measures have however now been adopted to secure a sufficient number.

Description of Work.	Estimated total cost.
1	2
BELLARY.—(*Continued*)	Rs.
Wuddoocuttahs or Dams for the protection of Villages from inundation at Humbuly....	41
Do. at Hurponhully....	62
Do. at Heerawadderhully..	159
Completing the following Roads. Bellary to Madaveram, Auloor to Codomoor, Kurnool to Ghooty, Ghooty to Adony, Ghooty to Bangalore as far as boundary, Total 289 miles....	1,07,520
Communication between Ramandroog and Bellary, Hosspett and Nauglapoor....	13,986
Bridging the Dharwar Road for the first two stages out of Bellary....	39,924
Woodoocottahs, &c., at several Villages........	351
Total Bellary....	1,94,999
KURNOOL.	
Paniem Talook Cutcherry.....	2,284
Improvement of Hoozoor Cutcherry Records........	230
Completing the following Roads, Kurnool to Hoodamoor..	
Kurnool to Nundy Canama........	1,07,160
Do. to Ghooty......	
Bridge over the Koondaur River on the Road from Kurnool to Cummum.	13,264
Bridge over the Yeldoortee Nullah on the Road from Kurnool to Ghooty	2,488
Total Kurnool....	1,25,426

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
30	30	Completed 30th April 1856.
62	62	Do.
159	159	Do. 8th December 1855.
69,401	72,713	Minor Masonry works mostly completed. Several drains have been built and the remaining works are in progress. The progress of the minor Masonry works and drains on the Bellary famine roads has been very satisfactory, especially considering the inexperience of the Officers and Overseers in charge—the scarcity of workmen and difficulty at first of procuring materials and the novelty of the work itself and of the Executive in the District.
11,947	11,947	These Roads are all in fair working order. The drains on the road between Hosspett and the foot of the Hill are now being covered.
18,028	18,028	In progress.
261	261	Three of these works completed, and the fourth one is still in progress.
1,21,168	1,24,480	
1,203	1,203	Half done, Masonry work cubic feet 18,298. Walls completed, wood and other materials are being collected.
223	223	Completed 15th June 1855
3,621	3,621	This road is 20 miles long and is in a good state of repair. 39 out of the 49 minor drains have been completed, but the larger bridges have not yet been begun.
33,339	33,339	This road is to be 60 miles long. About 17 miles have been made—this new line is now complete from Kurnool to near Pauniem, 5 miles of trees have been planted. All the Drains in number 74 have been completed.
17,083	17,083	Road completed from ½ a mile beyond Dhone to the Kurnool Boundary, being a distance of 7½ miles—63 Drains, 1 Bridge of 3 small arches and 1 Bridge with an arch of 10 feet span have been built—on the whole line there are only about 20 minor drains to be built.
1,052	1,052	Foundations of 8 piers built and cut stones raised 1-4th of the proper height. Upwards of one lac of bricks ready and a large quantity of pounded Chunam.
1,217	1,217	The foundations of 1 Pier and 1 Abutment excavated, 1 Pier and 1 Abutment built, average depth of foundation 10 feet.
57,738	57,738	

Description of Work.	Estimated total cost.
1	2
CANARA.	Rs.
Road from Guersappah to Sircy......	20,426
Court House for the District Moonsiffs at Bhatcul	1,224
Do. at Bilghy........	1,392
Do. at Soopah......	1,391
Bungalow at Coomptah......	1,851
New Jail at Honore........	20,188
Bridges on the Arbyle Road....	31,917
Sea Custom House at Coomptah	1,747
Embankment at the Coomptah, Sea Custom House......	300
Road from the Coomptah to the Sea Coast	2,069
Light House at Coomptah.....	1,796
3 Salt Koties at Coomptah and Augully.......	913
Jungars and Ferry Boats........	1,925
Drainage of the Dawamunny Road..	7,125
District Moonsiff's Court Houses at Moolky, Odupay, Karakal, Pootoor and Seryar....	6,622
Formation of new District Roads....	20,000
6 2nd Class Bungalows on the Road from Hallial to Sedashegur, Rupees 704¼ each	4,225
Sayer Chowkies and Police Tannahs at various places	271
3 Weighing Sheds at Coomptah......	125
3 Salt Depots at Nagurbyle, Rupees 394¼ each........	1,183
Widening and metalling the Road from Coomptah to the Beach.......	1,779
Embankment at the Munnikay ferry......	176
Extension of the Quay at Mangalore......	10,713
Three Road Circuits......	34,996
Completion of Munzerabad Ghaut....	13,590
Total Canara....	1,87,944
CHINGLEPUT.	
Improving the Road from Trivaloor to Corattoor...	14,417

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
6,739	9,123	Nearly 8 miles of the Ghaut Road opened to the full width. Work this season much delayed for want of Superintendence and by the prevalence of fever.
1,270	1,270	Since completed.
1,069	1,069	Roof work not completed. Record room only roofed.
842	842	In progress.
1,851	1,851	Completed.
7,535	13,635	The main buildings completed and roofed in, and others such as Hospital, Females, and Debtors' wards in a very forward state.
18,966	30,165	Most of the Bridges completed. Most useful to the traffic.
0	573	Materials collected. Work not commenced.
0	0	Not commenced.
462	1,737	Progressed to the Sea Port.
99	1,154	Pillar completed—Lantern not received—Roadwork somewhat progressed. Some further work remains to be done to the pillar after the lantern is placed.
112	692	Completed.
31	1,419	Purchased.
2,536	6,348	Drains very nearly completed.
1,164	1,164	Sites to be selected for the Court Houses at Karakal and Seryar. The remaining three Court Houses in progress.
20,000	27,559	
0	0	Not commenced.
256	256	In progress.
23	23	One shed only completed.
0	0	Not commenced.
1,778	1,778	Completed.
176	176	Completed.
3,606	3,606	About one-third completed. Suspended for a time for want of Superintendence.
24,698	24,698	All the roads in these 3 Circuits maintained in good order, and some Masonry works undertaken for their improvement.
1,368	6,977	With the exception of one Lattice Bridge the work remains exactly as left by Lieut. Roberts in June 1853. Want of Superintendence has caused the entire neglect of this work for 3 years.
94,571	1,36,115	
3,715	5,415	4 Tunnels, 5 Drains, 1 Barrel Drain and a Bridge of 2 Arches of 9 feet span completed—the abutments of another Bridge built up to the spring—2 miles of road from Corattoor completed with the exception of gravelling and about ⅔ of the remainder of the earthwork completed.

Description of Work.	Estimated total cost.
1	2
CHINGLEPUT.—(*Continued.*)	Rs.
Goodoopakum and Hamum tanks supplying Channel..	4,881
Palaur Annicut project portion for Chingleput..	3,44,868
Bridge over the Adyar on the Mount and Poonamallee Road..	18,007
Extending Corattoor Annicut......	16,358
Road from Mount to Poonamallee..	16,485
Total Chingleput....	4,15,016
NORTH ARCOT.	
Cutwall's Choultry at Chittoor	350
Village Moonsiffs Chavady at Suntapett...	150
Completing the Road from Sholinghur to Wallajahpett.... ...	5,492
Palaur Annicut project (portion for North Arcot)......	5,21,276
Traveller's Bungalow at Naraharipett....	1,929
Traveller's Bungalow at Kurcumbaudy....	1,754
Cross Road from Suntapett to Chittoor and Cuddapah Road..	731
Cross Road from Verinjepooram to Western Trunk Road..	983
Village Tank at Moshoor..	2,739
Sundry works of irrigation	1,931
Extention of Cheyaur Annicut projects	12,668
Road from Palmanair to Vencatagherry Cottah..	32,053

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
0	0	About ½ of the Channel has been dug on contract. No money paid up to the end of April 1856.
10,039	10,039	Masonry falls across Cumbum Cal and Govindavaudy channels. complete near Thandalum; Channel cut from Thandalum to Koorum, distance 3 miles, 5 fur. 63 yards, from Koorum to Periacaroomboor 33 yards, from Vellore to Seroovaukum 99 yards. Total 3 miles 5 fur. 195 yards.
7,723	7,723	Southern Wing wall and front Pier finished and the 2d and 3d Piers being built, the remaining Piers and Northern Wing wall raised about 4 feet. The other works are delayed for want of Cut Stone.
7,008	16,257	Completed in June 1855. Work done well.
6,777	14,685	One mile of Metalling remaining to be completed.
35,262	54,119	
88	88	Materials being collected. Under the Superintendence of Lieut. Mayne who from a press of other works has been unable to provide Superintendence for completing these two buildings.
35	35	
4,922	4,922	The line is open for traffic but for a distance of 3 miles from Sholinghur, some rather heavy work remains to be done in blasting rock and forming the road.
1,79,873	2,31,872	Of the Annicut about ¾ of the work is completed—of the Head Sluices 2 are completed, 2 nearly so, and the foundations of the 5th commenced—the connecting walls are nearly all completed of the Cauverypauk Channel and smaller Masonry works about ½ are completed, and of the Govinda vady, and Damul one-half.
150	150	Site fixed. Materials are being collected. No work commenced up to the 1st October 1855. Nothing could be done till after the monsoon. The work will now be carried on with all expedition.
100	100	Do. do. do.
729	729	Nearly completed.
0	0	Not commenced.
0	0	Not commenced. Delayed from want of Superintendence, but arrangements have now been made for carrying on the works under the directions of Captain Walker.
0	0	Not commenced. This work is brought forward in the Budget for 1856-57.
8,228	8,329	Widening and extending the channels to Pooresay completed and its extension to Tetry about ½ done.
4,636	4,636	The embankments are nearly completed to Byreddypully rather more than half the distance, and the Masonry works in progress, on the remaining portion of the line, the earthwork is progressing. The progress is slow owing to the difficulty of procuring laborers in sufficient numbers.

Description of Work.	Estimated total cost.
1	2
NORTH ARCOT.—(*Continued.*)	Rs.
Road from Vellore to Arnee..	27,260
Annicut across the Poonah or Poiney River...	31,206
Bridge across the River Palaur on the Road from Vellore to Chittoor....	72,673
Road from Pootulput to Kircumbaudy......	12,823
Tracing a Ghat from Cuddapanuttum to Goriattum........	2,400
Road from Conjeveram to Thellaur....	11,565
Road from Goriattum to Pullicondah......	13,188
5 Bridges on Chittoor and Kircumbaudy Road....	21,426
Improving the Iyengoontah Pass, and tracing Vencatagherry Cottah and Palmanair Road	2,050
Total North Arcot....	7,76,647
SOUTH ARCOT.	
Bridge across the Killinjelar between Pondicherry and Cuddalore British Moiety......	17,675
Stone pier at Cuddalore........	45,000
Road from Chellumbrum to the Salt pans......	4,381
Road from Trinomally to Tindevanum through Ginjee........	15,111
Road between Cullacoorchy and Oolundoorpett....	14,947
Works of Irrigation in South Arcot....	1,917
Do. of do.	149
Canal from the Port of Trimulvassel to the Coleroon River, &c. (portion of Rs. 21,500)....	8,500
Formation of new District Roads...	5,500
Calingulah to Permal Tank....	8,000

Expenditure during the year.	Total Expenditure	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
3,055	8,338	The embankments and Masonry works are nearly completed for the first 6 miles from Vellore, and the earthwork is in progress on different parts of the line. The progress is slow owing to the difficulty of procuring laborers in sufficient numbers.
15,874	15,874	The whole of the wells for the body of the Annicut and Western Head sluice are down and built over throughout the breadth of the work to the height of 1 foot—510 feet having been raised to the level of the apron. Of the apron itself, one course of rough stone has been laid the entire length and the 2d course is in progress. The wing walls of the Head sluice are raised to within 2 feet of the full height, the piers completed and covering stones for the head walls laid, the works have been delayed lately by rains, and light freshes in the river.
20,864	25,025	Foundations nearly completed and the piers in course of construction.
5,246	11,091	Of the 39 miles, 30 have been made passable, the tunnels and road dams are about 73 finished, and materials for the large bridges being collected.
746	746	A bandy tract has been opened to Nelliput, and the trace as far as Goriattum completed, though alterations are required in parts.
2,215	11,565	Completed.
0	0	Not commenced. An alteration in the line has been proposed.
0	0	Do. from want of Superintendence.
1,332	1,332	This line is open for traffic the entire distance and is now being much improved.
2,48,093	3,24,832	
0	0	Under progress by the French Government. No account has yet been received.
0	0	This work is connected with the Harbour Improvements and has not yet been commenced.
3,928	3,928	1 Tunnel only remains to be done. It has just been commenced.
13,350	14,000	In Masonry works, 10 Tunnels built, 4 in progress, and the road will be finished by the 1st June 1856.
12,141	14,544	Further expenditure entered opposite the supplemental Estimate for this work at the foot of this statement.
875	875	In progress.
147	147	Nearly completed.
6,118	6,118	Deepening in progress.
2,944	4,026	Greater portion of these roads completed.
5,026	6,926	Completed in March 1856.

Description of Work.	Estimated total cost.
1	2
South Arcot.—(*Continued.*)	Rs.
Bridge over Mercanum River......	8,000
Road from Yailoor to the bank of the Vudavaur....	3,346
Bridges on Road from Tindevanum to Trinamally, viz, over the Dondeyaur River, Vuraganuddee River, and Toringahaur......	10,998
Road from Cuddalore to the Vellar....	42,000
Total South Arcot....	1,85,524
Salem.	
2 Bridges on the Road between Sooloor and Coimbatore...	1,059
Yettapooram Wodeyshul Tank......	1,093
Culliangherry (old) Tank....	1,561
Coorchee Annicut Tank and Channel......	1,799
Veytacaranoor Cone Tank....	874
Poodoopolliem Tank..	1,152
Chinnakistnapooram Pereeyaròo Annicut....	285
Pulleeputty (old) Annicut over Bandysholegaroo	514
Moonsiff's Cutcherry at Namagherry Pettah..	934
Constructing Bridges, Dams, &c., along the Road from Salem to Trichinopoly.....	1,613
Repairing and constructing works of Irrigation......	1,272
New Tank Annicut and supplying Channels, &c., Salem Talook...	2,159
Poposed Yerramasamoodrum Annicut channel &c. Salem Talook.......	1,904
Widening the road from Mooganoor to Namcul, and constructing dams and drains......	1,055
Total Salem....	17,274
Trichinopoly.	
Road from Trichinopoly towards Dindigul.........	15,177

Expenditure during the year.	Total Expenditure	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
8,000	8,000	Further expenditure entered opposite the supplemental Estimate for this work at the foot of the statement.
1,432	1,432	1 Tunnel completed and the road work in progress.
1,600	1,600	Foundations for 2 bridges commenced, materials are being collected for the others. Great difficulty is experienced in getting workmen and Maistries.
32,846	32,899	Road is formed throughout; Tunnels, &c. in progress.
88,407	94,495	
766	766	Work in progress.
192	192	In progress
961	961	Do.
950	950	Do.
285	285	Do.
700	700	Do.
145	145	Do.
205	205	Do.
350	350	Work to the walls is in progress.
388	388	Abutments to the bridge over the Pauponty Oday stream, and foundations to that over the Eachgoary stream are in progress.
312	343	In progress.
901	901	A great portion of the earthwork to the bund has been executed, and advances for stone work to the Annicut and Tank have been made.
1,906	1,906	A great portion of the repairs to the channels has been executed; work to the Annicut is in progress. The estimated amount for this work is Rs. 2,792-4-0. After the work is completed Rs. 888-7-2 will have to be recovered from the Agrarumdars as their share of the Repairs.
719	719	Work completed, with the exception of covered drains, and gravel between the 6th and 7th mile stones.
8,780	8,811	
5,883	6,008	Earthwork completed. Gravel work performed to the distance of 5 furlongs and tamped. 24 Tunnels completed; Tunnel No. 20 is done up to the basement and that No. 27 up to the spring of arch; the remaining work is in progress.

Description of Work.	Estimated total cost.
1	2
TRICHINOPOLY.—(*Continued.*)	Rs.
Extending the Irrigation from the Lalgoody channel to lands in the Woodiarpolliem Talook.........	30,000
Main Channel with branches from the Coleroon in Woodiarpolliem Talook......	52,952
Extending the Wyacondum Channel (portion of Rupees 34,134)......	20,035
Masonry works on the Trichinopoly and Towagoody Road...	1,166
Total Trichinopoly....	1,19,330
TANJORE.	
Road from Cungalauchairy to Nagoor........	12,852
Do. from Tritrapoondy to Trivaloor..	14,000
3 Bridges on Cootalaur and lower Annicut Road..	11,192
Enlarging Bridges in the Tretrapoondy Talook....	4,001
Canal from the port of Trimulvassel to the Coleroon river (portion of Rupees 21,500)........	13,000
Extending the Wyacondum Channel (portion of Rupees 34,134).. ..	14,099
Road between Ammapettah and Paupanassum......	42,165
Improving irrigation and drainage connected with the Tulnoyer Cotagum........	26,757
Improving Munnyar River for navigation........	35,000
Travellers' Bungalow at Tranquebar..	350

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
20,028	21,678	Head sluice of the Varagaloor channel finished. The Annicut completed with the exception of the re-erection of the breach 27 yards in length, main channel excavated 40,000 cubic yards, materials for remaining masonry works collected and tank repairs in progress.
18,853	18,853	Main channel excavated cubic yards,...... .... 1,98,876 Branches do. .... 20,682 Surplus do. .... 21,337 Head sluice completed, Aroomooly Calingulah 3 feet raised above foundation. Woodiarpolliem Road Bridge arch being turned. Streepoorantase Road Bridge three quarters of foundation done. Head sluice of Branch No. 1 commenced.
14,540	14,540	Main channel 1,24,191 cubic yards excavated. 24 Branches and tank repairs in progress. 8 sluices and 9 calingulahs completed.
1,128	1,128	Completed 15th March 1856.
60,432	62,207	
11,192	11,192	Completed in April 1856.
11,998	11,998	Do. do.
10,997	10,997	Do. do.
2,573	2,573	Half completed, the remaining work in progress.
9,183	9,183	Excavation to 8 miles was done.
5,147	5,147	Vide remark in Trichinopoly for the state of the progress of this work opposite to the item of Rs. 20,035.
39,214	39,214	About 10 miles of Earthwork, 85 Tunnels and the Bridges across Ragoonathen Cavery, Periapoigay and Vettaur and 5 Arches of the Vennaur Bridge were finished, the approaches of the Vettaur Bridge and that over the Vennaur and 2 Arches of the latter with 11 Tunnels were under progress. The whole is now completed with the exception of the approaches of the Vennaur Bridge and parapet walls for the former.
14,705	14,705	Earthwork mostly completed and materials for masonry works are under preparation.
8,540	8,540	In progress.
350	350	Completed in April 1856.

Description of Work.	Estimated total cost.
1	2
TANJORE.—(*Continued*)	Rs.
Extending lower Coleroon Annicut..	70,000
Total Tanjore....	2,43,416
COIMBATORE.	
Caroor and Metapolliem Road......	12,075
Coimbatore and Amravutty Road..	32,909
Store shed at Metapolliem.......	465
Bridge across Thompullum on the road from Coimbatore to Sooloor.....	441
Bridge across Sinthamany Pullum on the Road from Coimbatore to Sooloor....	617
Moonsiff's Court House at Coimbatore..	1,115
Completing the new Verandah to the Court House at Coimbatore......	108
Modloor Chuttrum......	447
Collegaul Chuttrum....	991
Moonsiff's Court House at Caroor......	1,131
2 Bridges on the Road from Coimbatore to the Neilgherry Hills	2,007
Cutwall's Choultry at Metapolliem....	789
Sluice for Areacavoondanoor Yairy..	346
Sluice, &c. to Hunpapoor tank in Collegaul..	918
Traveller's Bungalow on the Hassanoor Ghaut..	1,059
Additions to the Hoozoor Cutcherry and Post Office at Coimbatore.....	3,403
Bridge at Coonoor...	915
Market places at three stations....	1,500
Choultry at Tookanaikenpolliem..	850
Do. at Metapolliem..	500
Enlarging Suttimungalum Choultry..	300

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
99,365	99,365	The extension of Annicut as well as bridge over the south branch of the Coleroon were completed and work done to the springing of arches in the north, and the centering work under progress. The expenditure on the Bridge across the lower Coleroon Annicut is included in this item, though the Bridge work is entered separately in the Trunk Road Budget for this year, as the accounts of expenditure on the Annicut and Bridge have not been kept separately for each work.
2,13,264	2,13,264	
5,275	11,275	With the exception of few drains in the limits of Denaiken Cottah Talook and some work in Caroor which are in progress, the work has been completed.
16,431	21,392	2 Bridges done, 4 Bridges half done, 4 Bridges not begun, 44¾ miles made including drains and partially metalled, 4 miles, to be done.
465	465	Completed 20th November 1855.
621	766	Sinthamany Bridge completed lately, and as regards the other materials are under collection.
500	500	Advanced for materials. This work was delayed on account of a reference with regard to an alteration of the size of the plan proposed by the Judge.
108	108	Completed 18th April 1855.
50	50	Advanced for materials.
0	0	Not commenced. As workmen are scarce here the work will be commenced after the completion of Modloor Chuttrum.
555	1,014	Nearly completed, containing 250 cubic yards of Masonry and 26 squares of roofing.
2,000	2,000	Completed, containing 800 cubic yards of Masonry.
789	789	Do. 20th November 1855.
103	103	In progress.
101	231	The progress is slow in consequence of the scarcity of work people.
1,059	1,059	Completed 10th February 1856.
1,755	1,755	The additions to the Hoozoor Cutcherry are completed, the rest has been commenced, 124 cubic yards of Masonry and 42 squares of roofing.
400	400	Destroyed by freshes. This was an accommodation Bridge to connect together the two parts of the native town of Coonoor, when the abutments were built and before they were dry or filled in a flood washed them down.
438	438	Materials under collection.
150	150	Do. do.
500	500	Completed 21st December 1855.
0	300	Completed 17th December 1854. This work was completed before the Budget season of 1855-56.

Description of Work.	Estimated total cost.
1	2
COIMBATORE.—(*Continued.*)	Rs.
Hassanoor Ghaut and Bhowany Bridge..	25,579
Improving and extending Tadapully Channel......	23,632
Total Coimbatore...	1,12,097
MALABAR.	
Moonsiff's Court House at Tellicherry..	1,263
Road from Sultan's Battery to Kulputtee, &c....	2,226
Public Bungalow at Cochin...	1,833
2 Bridges on the Road between Congad and Cherpulcherry	479
Dam at Chetwye..	46,116
Police Ameen's Cutcherry at Sultan's Battery......	237
Moosafarkhana at Puncooly......	328
Ameen's Cutcherry at Tanore..	318
Total Coimbatore....	52,800
MADURA.	
Talook Cutcherry at Meyloor......	3,363
Additions to the Hoozoor Cutcherry......	497
Bridge and Causeway on Road No. 4........	649
High Road No. 4 between Madura at Thiroomungalem...	4,324
Road No. 18 between Ullinagarum and Cumbum......	4,551
Completing Arpoocottah and Ettiapooram Cotton Road (portion of Rs. 18,642-6-5.)	3,654

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
11,814	25,579	Further expenditure entered opposite the Supplemental Estimate for this work at the foot of this statement.
834	3,791	The Head sluice has been half built. All the procurable workmen having been employed on the Bhowany Bridge, Hussanoor Bridges, &c., the sluices for these channels were not begun.
43,948	72,665	
737	737	The Masonry work is finished, and the rooff is in course of erection.
27	1,027	The work has been more than half finished.
697	738	Foundation has been laid. The work is in progress.
350	350	The work is in progress.
24,938	30,914	In progress
29	229	Finished in March 1856.
96	96	Materials are being prepared.
278	278	Completed in April 1856. A verandah is now being added to this building.
27,152	34,369	
1,282	1,282	Bricks and chunam are being prepared; 10 windows and frames are ready. This work was not commenced in 1855 in consequence of certain alterations having been made in the original plan.
497	497	Completed 26th January 1856.
375	375	Bridge completed, the approaches are being formed by convicts. Considerable saving has arisen from the employment of convicts labor, the bridge being close to Madura. Guard stones not provided for in the estimate, remain to be put up from the surplus.
4,223	4,223	2 Miles of road are raised and partly gravelled. A tunnel and pavement completed together with 2 road dams. The remainder of the gravel work is under execution.
1,719	1,719	Earthwork for a distance of 4 furlongs is done and the road is gravelled for 196 yards, 2 Yekulanais are built and another is under execution. Owing to extreme difficulty in procuring coolies the work progresses very slowly, materials for masonry works are under preparation and they will be put in hand shortly.
3,653	3,653	Completed.

Description of Work.	Estimated total cost.
1	2
MADURA.—(*Continued.*)	Rs.
Bridge over the Ambravutty river on the road from Coimbatore to Dindigul in Madura District......	21,539
Total Madura......	38,577
TINNEVELLY.	
Sundry works of Irrigation........	10,503
High Road No. 4 between Palamcottah and the Arambooly lines......	7,470
Bridge across the Odaycaraputty Oday on road No. 4 between Coilputty and Sautoor......	1,149
Road No. 10 between Punnagoody and Calcaud......	938
Road No. 14 and 15 between Trichendoor and Woothengoody.......	2,827
New Treasury and Record room to the Shairmadavry Talook Cutcherry	769
Additions to the old Jail Hospital at Tinnevelly......	563
Bridge across the Asoor Oday on Road No. 4.......	2,579
Bridge across the Jungle Stream South of Asoor Oday on Road No. 4.	559
Bridge across the Numbeyaur on Road No. 4....	8,859
Completing Cotton Roads (portion of Rs. 18,642-6-5.)..	14,989
Sundry works of Irrigation....	5,462
Bridge across the Veypullayputty river on road No. 4..	10,313

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
4,048	4,048	4 Piers have been built up to the springing of the Arches and the Eastern abutment completed, the 5th pier is under execution. Work executed. Brick in chunam, cubic yards 561. Rough stone in do. „ 241.
15,797	15,797	
7,518	7,518	Almost all the masonry works have been completed, but th earthwork is for the most part delayed in consequence of there being water in the Tanks.
6,816	6,816	The earth and masonry works have been performed and the gravelling is under progress.
1,149	1,149	Completed 30th April 1856.
938	938	This has been performed with the exception of rolling which is now being attended to.
1,625	1,625	The road has been raised for a distance of 1,680 yards and 2 tunnels constructed.
763	763	This has been completed with the exception of woodwork.
556	556	Completed 22nd April 1856.
1,676	1,676	The piers have been raised to the required height and the covering stones are now being laid.
559	559	Completed with the exception of parapets and plastering.
3,086	3,086	The foundations have been laid and the piers are now being built.
14,809	14,809	Work executed during the year. miles. fur. yards Completed including metalling and gravelling 11 5 200 Under progress.... .. ... 4 3 185 A small portion of the work is yet remaining to be executed from the saving on the original estimate sanctioned out of the Tripany fund.
1,304	5,270	Nearly completed.
4,613	10,258	The whole of the principal and spandril arches have been turned, the wing and spandril walls, blocking course and parapets have been constructed, and the plastering fully completed, work executed during the year. Brick in chunam... ... .. cubic yards. 959 Do. arch work... .. .... do. 629 Rough stone in chunam.. ...... do. 247 Plastering square feet.. ... . 37,215 The approaches to the Bridge are under execution, and will be completed in 2 months.

Description of Work.	Estimated total cost.
1	2
TINNEVELLY.—(*Continued.*)	Rs.
Bridge across the Sautoor river on Road No. 4..	24,621
Total Tinnevelly....	91,601
UPPER GODAVERY.	
Improvement of the Upper Godavery for Navigation....	1,06,717
MADRAS.	
Building for the Superintendent of Salt, and for Captains of Vessels at Ennore, &c. and formation of a Road..	2,442
Extending Cochrane's Canal towards the Sea..	35,734
Total Madras.....	38,176
MILITARY DIVISIONS, CEDED DISTRICTS.	
BELLARY.	
Erecting exterior Verandahs to the nine Ranges of European Infantry Barracks at Bellary	41,270
CENTRE DIVISION.	
CUDDALORE.	
Erecting a Place of Arms and Store Magazine	6,117

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and explanatory Remarks.
3	4	5
Rs.	Rs.	
9,042	20,914	The whole of the principal and spandril arches have been turned. The wing and spandril walls, blocking course and parapets have been constructed during the year. Brick in chunam........ .... cubic yards. 1,637 Do. arch work.. ...... do. 1,633 Rough stone in chunam . .... do. 92½ The plastering and approaches are under execution and will be fully completed in about 4 months.
51,454	75,937	
1,30,396	1,30,396	Further operations suspended pending consideration of Lieut. Haig's final Report. This amount is the expenditure by Lieut. Haig up to August 1855, and the payment on contingent Bills to him up to April 1856. From this amount if deducted Rs. 24,750 the estimated value of Plant remaining on hand after allowing for depreciation in consequence of wear and tear, the actual expenditure will be Rs. 1,05,646.
0	0	Ennore having now been discontinued as a place of store this work is unnecessary.
0	0	Not commenced yet.
0	0	
29,204	39,751	Guard and school room ranges finished, one of the ranges of Barracks is almost finished, the 2nd one is terraced and the woodwork to the 3rd is nearly fixed up. Verandah pillars have been built up to the remaining 6 ranges together with the Canteen and orderly room, &c. wood and paving slabs are being prepared and collected for the works of the latter buildings.
0	0	This work was completed in 1854-55 and reported so in that year's Report of Progress. The Military Board included this item in the budget by mistake.

Description of Work.	Estimated total cost.
1	2
	Rs.
HYDERABAD SUBSIDIARY FORCE.	
JAULNAH.	
Improving the Hospital of the European Horse Artillery at...	1,571
Improving the Commissariat Office at........	898
Improving the guard and prison rooms of the European Horse Artillery at........	3,540
Constructing two detached privies for one Troop of European Horse Artillery at....	867
Constructing two detached Cook rooms for the European Horse Artillery at....	1,269
Raising the walls and improving the Hospital of the Regiment of Native Infantry at.....	1,100
Improving the European Horse Artillery Barracks at....	9,245
Total Jaulnah....	18,490
SECUNDERABAD.	
Constructing a detached Building for the treatment of severe cases in the Hospital attached to place of arms for Native Infantry, Nos. 96 and 163....	1,916
Constructing new Barracks for the European Infantry Regiment. .. .	4,77,923
Total Secunderabad ...	4,79,839
MYSORE DIVISION.	
BANGALORE.	
Removing and replacing the whole of the flat and pantiles and covering the latter with a course of flat tiles plastered with an upper coat of chunam to the roof of the A Troop of the Dragoon Barracks, No. 3 at........	1,363
Supplying Ridge Ventilators and re-roofing 7 of the Dragoon Barrack Ranges at....	13,753
Repairing roof of the Canteen and enlarging the new Non-Commissioned Officers' Rooms attached to the Dragoon Barrack Square at Bangalore.	1,566

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
690	1,301	Completed 31st August 1855. The saving on this work has been caused by using the materials from the dismantled buildings.
42	436	Completed 26th May 1855, do. do. do.
1,858	2,029	Completed 30th November 1855. The saving on this work has been caused by using the materials from the dismantled buildings.
382	418	Completed 30th August 1855. do. do. do.
570	585	Do. 30th August 1855. do. do. do.
100	429	Do. 26th May 1855. dn. do. do.
9,010	9,010	Completed all but the glazed windows and a fine coat of ch.ı-nam to the terrace of verandah.
12,652	14,208	
1,854	2 008	Completed 4th September 1855.
2,13,173	4,59,257	7 Ranges are roofed in, the timbers of the 8th range is all put up and as the timber from Masulipatam has arrived the remaining 2 ranges will be covered in immediately.
2,15,027	4,61,260	
234	234	Roof dismantled. Timber removed and new roof partly covered.
377	377	Two of the ranges untiled. These works were stopped as fresh plans and estimates were ordered to be prepared. They were submitted and included in the Budget of 1856-57, No. 1.
1,522	1,522	23d August 1855.

Description of Work.	Estimated total cost.
1	2
MYSORE DIVISION, BANGALORE.—(*Continued.*)	Rs.
Repairing and altering the roof of the Library in the Dragoon Barrack Square....	1,748
Constructing Buttresses to the walls and renewing the roof of the Timber shed No. 2, dismantling the roof of the shed No. 1. and constructing a Compound wall to the Engineer's yard in the Cantonment of Bangalore....	1,181
Constructing a Guard room, Bathing room, and a separate ward for special cases to each of 2 Native Infantry Hospital......	1,870
Total Bangalore....	21,481
KAMPTEE.	
Constructing a Belfry to the Church at........	2,566
PRESIDENCY DIVISION.	
MADRAS.	
Widening the Roadway over the Bridge near Government Garden House.	7,542
Forming a Road and Road way between the Commander-in-Chief's and Saint Andrew's Bridges......	8,328 } 4,004 }
Constructing a Groyne opposite the Light House on the North Beach....	22,526
Constructing Groynes to widen the road opposite the Custom House on the North Beach	25,000
Constructing a Masonry Bridge back of Ashton's Shop	50,135
Total Madras......	1,17,535
FORT SAINT GEORGE.	
Rebuilding part of the Flag Staff Redan over the foundations, and part of the old wall of the Flag Staff......	15,596
Constructing 3 Groynes for the protection of the sea face of Fort Saint George	51,533
Constructing a Masonry Channel or Cistern for watering the roads and laying down Cast Iron Pipes in Fort St. George......	12,965
Total Fort St. George....	80,094

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
1,747	1,747	8th September 1855.
1,180	1,180	31st August 1855.
0	0	No work was ever done upon this estimate as it was ordered to be stopped a few days after the advance had been received. Revised plans and estimates were submitted which were returned for revision.
5,060	5,060	
902	2,613	Completed 12th July 1855.
69	6,234	Part of the Iron railing put up on one side, the rest in progress.
12,557	12,557	Completed.
10,122	10,122	Nearly completed. Instead of one Groyne of 160 yards in length two of 100 and 60 yards respectively have been built and are nearly completed.
12,360	12,360	Nearly completed.
19,009	63,863	Completed 10th November 1855.
54,117	95,126	
705	1,675	Suspended, as the thorough reconstruction of the Flag Staff Redan has not been provided for in this estimate.
19,716	21,898	Nearly completed. Instead of three it was thought desirable to make 6 Groynes of shorter dimensions than originally intended, which with other works are in active progress.
2,732	2,885	This Cistern is all built except the plastering. The pipes and brass Cocks, &c. are being made.
23,153	26,458	

Description of Work.	Estimated total cost.
1	2
MADRAS.	Rs.
Building Lines for a Regiment of Native Infantry in Perambore	42,758
Rebuilding the small Magazine attached to the Drying Terraces at the Gun Powder Manufactory in Vaserpaudy	1,791
Extending the present revetment on the right bank of the Cooum river along the dam road at the back of Ashton's Shop....	3,228
Separating the Sewerage of Black Town from the Drainage..	3,631
For making certain improvements to afford additional accommodation to the Government Lying-in-Hospital	11,000
For constructing quarters for the accommodation of the Apothecary attached to the above Institution	3,077
Total Madras....	65,485
SAINT THOMAS' MOUNT.	
Erecting a Police Office in St. Thomas' Mount..	13,339
SAUGOR DIVISION.	
HOSHUNGABAD.	
Thatching the Hospital, retiling Serjeants' Quarters and Store rooms, and rebuilding walls of Engineer Godowns at.....	1,013
Removing the thatched roof of the Hospital and replacing it by a tiled one at........	3,631
Total Hoshungabad....	4,644
MHOW DIVISION.	
SIRDAPORE.	
Constructing an Hospital at......	5,517
MALABAR AND CANARA.	
CANNANORE.	
Putting up Ridge Ventilators to the European Barracks..	2,027

Expenditure during the year.	Total Expenditure	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
34,500	34,500	Nearly completed.
2,077	2,381	Completed in October 1855.
625	3,131	Completed.
3,631	3,631	Further expenditure entered opposite the Supplemental Estimate for this work at the foot of the statement.
6,248	11,000	Further expenditure entered opposite the additional sum sanctioned for this work at the foot of the statement.
2,716	2,716	Completed with the exception of paint work, &c.
49,797	57,359	
13,339	13,339	Completed in December 1855.
331	331	Work to the Serjeants' Quarters, Store room and Engineer's Godown completed. The remaining work, viz. Thatching the Hospital was stopped as an estimate for Rs. 3,631 was sanctioned for a tiled roof being substituted to the Hospital as will be seen below.
0	0	Work suspended by the Superintending Engineer pending decision to a reference made as to the real necessity for this work.
331	331	
0	0	This work was completed in 1854-55 and reported so in that year's Report of Progress. The Military Board included this item in the Budget by mistake.
1,859	1,859	Completed 18th April 1856.

Description of Work.	Estimated total cost.
1	2
SOUTHERN DIVISION.	Rs.
PALAMCOTTAH.	
Constructing a Church at....	3,982
JACKATALLA.	
Constructing European Infantry Barracks, Neilgherries with subsidiary works..	4,00,000
SALEM.	
Constructing a Place of Arms for a Detachment of Veterans	2,064
Hospital do. do.	2,129
Total Salem .. .	4,193
Total Military Works......	12,69,579
TRUNK ROADS—CANARA.	
TRUNK ROAD No. 2.	
Construction of Bridge over the Huntiam Nullah..	1,455
TRUNK ROAD No. 3.	
Construction of Masonry works in the Canara District	13,590
MALABAR.	
TRUNK ROAD No. 4.	
Construction of Bridge over the Irretty Todoo River....	29,923
COIMBATORE.	
TRUNK ROAD No. 5.	
Construction of Masonry works in the Coimbatore District...	4,441

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
3,977	3,977	Completed 22nd February 1856.
1,20,077	4,20,000	One range of Barracks will be completed within six months, and a second within twelve. Married and Staff Quarters will be commenced immediately. The expenditure this year appears small, the resumption of the works only taking place in October 1855 giving little more than 6 months in full work.
2,259	2,319	Completed 31st March 1856.
263	263	Materials collected. Work not commenced. This work was delayed owing to the objections made by the Civil Engineer and Zillah Surgeon to the site originally selected for this building.
2,522	2,582	
5,32,017	11,43,923	
433	1,338	Completed 30th April 1856. This work was a long time on hand, a dispute having arisen about its site, which was eventually changed to the satisfaction of all parties.
0	0	This work is included in the Revenue Board's Budget under the District of Canara.
2,856	3,246	In progress.
2,503	2,728	One bridge has been constructed and the rest is under progress.

Description of Work.	Estimated total cost.
1	2
GANJAM.	Rs.
TRUNK ROAD No. 6.	
Construction of Road between Denda Gedda and Hooma Causeway, 40 miles..	39,567
Construction of a Bridge across the Nungolia river at the Town of Chicacole..	29,285
NELLORE.	
Construction of Road from Covoor to Moodegundoo, 69 miles	1,17,113
VIZAGAPATAM AND GANJAM.	
Construction of road between Soobaram, Bimlipatam river, and Itchapoor, 159 miles...	90,973
NELLORE.	
Completing road between Goomdipoondy and Covoor, 83 miles.........	68,813
VIZAGAPATAM.	
Rebuilding Bridge in the embankment forming the south approach to the bridge over the Bimlipatam river..	5,165
Construction of a bridge of 3 arches between Aukapilly and Soobaram ..	896
NELLORE AND GUNTOOR.	
TRUNK ROAD No. 7.	
NELLORE.	
Constructing a road from the Moodegundah river 3 miles north of Ongole to the Hyderabad frontier at Pondigul on the south bank of the Kistnah, 91 miles..	45,313

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
16,356	39,567	Further expenditure entered opposite the Supplemental Estimate for this work at the foot of the Statement.
3,277	29,285	Further expenditure entered opposite the Supplemental Estimate for this work at the foot of the Statement.
40,000	68,261	All the embankments between 113 and 184 miles were finished before monsoon, during which considerable damage was done, for which an estimate is prepared. The side Channels are nearly finished south of Gowravarum, all the small Masonry works are constructed, and for metalling this portion jelly and gravel collected and carted, and the spreadage commenced. Contract for bricks and chunam for small Masonry works also for metalling the old portion of road between Pelloor and Moodegoondah and portion of road between Moosanoor and Tongtoor have been made out and advances given.
11,618	13,660	Only 12 miles of this road up to Chittavalsa in progress. The remaining 137 miles were sanctioned on a rough estimate of Rs. 500 per mile. The other portion of the work not proceeded with, as regular estimates for the same were prepared and included in the Budget of 1856-57.
37,805	67,392	Completed.
0	0	Lately commenced. This work was not commenced before the middle of April, because no Member of the Department was available to undertake it earlier.
318	801	Completed in May 1855.
17,609	21,677	There are only 27 miles in the Nellore district, with the exception of one or two short distances, the whole are metalled and open for traffic. The bridges and tunnels with the exception of the large bridge across the Goodlacumma river will be completed during 1856-57, a number of tunnels and road dams are already finished.

Description of Work.	Estimated total cost.
1	2
	Rs.
GUNTOOR.	88,708
Total....	1,34,021
TRICHINOPOLY.	
TRUNK ROAD No. 8.	
Completing road between Salem and Trichinopoly, 47 miles..	13,324
TANJORE AND SOUTH ARCOT.	
TRUNK ROAD No. 9.	
Construction of a Bridge across the lower Coleroon Annicut..	80,000
SOUTH ARCOT.	
Two additional Arches to the bridge over the Vuddavaur channel	5,981
CUDDAPAH.	
TRUNK ROAD No. 11.	
Construction of road between Baukrapett and Cuddapah, 6½ miles......	16,903
NORTH ARCOT.	
Construction of road between Poothulpett and Yerlunpully, 12 miles ..	31,955
CUDDAPAH.	
Construction of road between Kulloor and Kulenda, 25 miles	30,698

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
18,252	24,506	Gravel for the whole of the Road from Copperabad to Nacrikul has been quarried, 26 miles and 6 furlongs have been cut to the proper section ready for its reception, and 8 miles metalled and completed, 31 road dams have been constructed. The small progress made on this Road is attributable first to the scanty population of the District which is nearly all employed in cultivation, and secondly to the prejudices of the people who are unwilling to leave their villages for road work, no work of that description having been carried on in this part of the district for many years.
35,861	46,183	
7,881	10,974	30 Miles completed. Gravel was heaped for 10 miles more and spreading going on.
0	0	The expenditure on this work is included in that for extending lower Coleroon Annicut in Tanjore at an estimated cost of Rupees 70,000.
0	5,584	Completed in 1854-55.
5,014	20,065	This estimate has been exceeded, but the work is not completed. A Supplemental Estimate has been submitted to Government for work remaining to be done.
20,802	22,363	The embankments are completed throughout the distance of 30 miles, and metal being completed. The tunnels are ½ built, and road dams nearly finished.
9,098	19,484	This road has been marked out and levelled.

Description of Work.	Estimated total cost.
1	2
	Rs.
NORTH ARCOT.	
Completing road between Chittoor and Poothulput 10 miles..	9,560
CUDDAPAH.	
Construction of road from Kulcudda to the foot of the Goolcherroo Ghaut, 31 miles........	56,697
BELLARY.	
TRUNK ROAD NO. 12.	
Construction of a Bridge over the Pennaur river 15 Arches of 45 feet span.	35,280
Construction of a road between Bellary and Coodairy 45½ miles	57,051
NORTH ARCOT AND CUDDAPAH.	
TRUNK ROAD NO. 13	
Preliminary works on the direct road to Cuddapah	6,000
To Cuddapah......	9,000
	15,000
Construction of Bridges and Drains on the direct road to Cuddapah ...	6,103
Total Trunk Road Works......	8,93,794
ADDITIONAL WORKS NOT INCLUDED IN THE BUDGET.	
GANJAM.	
Supplemental Estimates.	
Construction of Road between Denda Gedda and Hoomah Causeway 40 miles and completing part of same line between Itchapoor and Hoomah.	12,169

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
0	1,172	Vide remark opposite to the item, Construction of road between Poothulput and Yerlumpully, Rupees 31,955.
14,436	44,467	The greater portion of this road has been levelled, and rocks have been removed in large masses.
2,219	2,219	Materials collected. Rough stone 2,268 cubic yards. Bricks nearly 2¼ lacs, Chunam 29 Candies.
6,542	15,331	Earthwork completed to about 14 miles from Coodair bridges and road tunnels built for about 9 miles of that distance.
1,690	5,805	The principal and the most serious impediments to the common cart traffic have been removed.
528	9,000	Completed in July 1855.
1,700	1,700	Minor tunnels and road dams have been completed this year.
2,20,937	4,30,625	
9,226	9,226	Road formed throughout and metalling in progress. The Bridge of 7 arches of 10 yards span at Itchapoor completed with exception of parapet walls. Bridge of 3 arches of 10 yards span each over the Denda Gedda has 3 arches turned, 69 small bridges and tunnels have been completed. This estimate was found necessary for enlarging the waterway of 3 bridges and adding several small Masonry works on the line not previously provided for.

Description of Work.	Estimated total cost.
1	2
ADDITIONAL WORKS NOT INCLUDED IN THE BUDGET.	Rs.
GANJAM.	
SUPPLEMENTAL ESTIMATES.—*(Continued.)*	
Construction of a Bridge across the Nungolia river at the town of Chicacole..........	10,048
Works not included in any Budget.	
Construction of road from Chicacole towards Itchapoor at Rupees 500 per mile......	40,000
Emergent Works.	
Mahanuddee River embankments..........	64,840
Head Sluice to the Wadada channel taken off from the Nungolia River near Chicacole......	4,320
Head Sluice to the Doosee channel taken off from Nungolia River near Chicacole......	3,410
Head Sluice to the Byree channel taken off from the Wumshadara river above Byree......	4,320
Total Ganjam....	1,39,107

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
10,502	10,504	Bridge of 24 Arches of 36 feet span each, 2 Arches turned, face walls, spandrills and backing completed to 20. This estimate was rendered necessary by increased height of piers for all the Cut waters with cut stone and the constant clearing out of the foundations and carrying away of embankments by unseasonable freshes.
11,576	39,774	Road formed entire 40 miles, 35 miles metalled and gravelled. The Itchapoor Bridge three quarters completed, and 91,000 cubic feet of masonry built. The Denda Gedda very nearly completed, 50,000 cubic feet masonry built. On 10th April 1854 Government sanctioned the expenditure of Rupees 500 per mile for earthwork on this and other Lines for employment of the poor at a time of scarcity. In Minutes of Consultation 13th April 1855, the sanction was cancelled.
2,516	2,516	Embankments from the Town and Factory of Aska to junction of the Mahanuddee and Rooshkoolca rivers (about a mile in length) raised on both banks, the height of bank averaging from 2 to 3 yards. This work is included in the Budget of 1856-57 but was commenced in anticipation of the sanction of Government of India, prior to the 1st May 1856 under instructions from this Government.
1,722	1,722	Half done. 2,000 cubic feet masonry built. This work is included in the Budget of 1856 57 but commenced prior to the 1st May 1856 under instructions from Government, so as to be built if possible before the freshes expected about July.
671	671	Bricks and other materials prepared. This work is included in the Budget. do. do. do.
1,674	1,674	Foundations completed, flooring between retaining walls and cut stone between Piers laid. Wing walls above foundations raised 8½ feet. This work is included in the Budget. do. do. do.
37,887	66,085	

Description of Work.	Estimated total cost.
1	2
VIZAGAPATAM.	Rs.
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Constructing 3 Bridges on the new road leading from the town of Vizagapatam to Yamoolavalsah	8,566
RAJAHMUNDRY.	
Supplemental Estimates.	
Widening and deepening the Palcole channel....	57,280
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Supplemental on account of Weyaroo Project connected with the Godavery Annicut	28,722
Constructing a Coal shed for the reception of Coal at Cocanada.. ..	1,686
For erecting 3 additional groynes for the defence of the town of Nursapoor......	1,675
Formation of a road between Neelapully and Yanam and Cocanada, passing through Coringa..	6,058
Excavating Irrigation channels from the Cowlaiswarapoorum channel, Yanam branch channel and Injcram channels..	9,301
Excavating branch irrigation channels on the western side of the Godavery in the Rajahmundry District....	9,833
1 Aqueduct and 2 Tunnels on the line of the Oondee channel..	6,149
Channel from Dungairoo to Koodapoor...	1,875
Enlarging the head of the Thooliah Bagah channel...	42,292
Excavating branch channels in the Rallee and Amalapoor Talook	59,135
Completing the eastern branch channels...	1,11,903
Widening and straightening the Apparoo channel....	45,022
Embanking the Nuckala and Kauzah channels, erecting embankment between Mogultoor and Kodaitee Madoogoo and cutting drainage channels...	23,918
River embankment, &c. from Ramrazelunka to Sakinatapilly..	12,406
Widening the Samulcottah channel	48,227
Cutting an outlet for the drainage water on either side of the Gosta Nuddy..	7,260
Branch channel from Vailpoor to Mogultoor........	5,250
Reopening Sakenatapilly cut......	7,623
Fort Gallows..	139
Constructing a Sea Custom House at Cocanada........	5,499

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
7,871	7,871	Work stopped, estimate being insufficient. Supplemental Estimate for Rupees 2,120 was since sanctioned.
35,564	35,564	3 Locks 4 calingulahs finished, 24 miles of main canal and about 100 miles of branch channel excavated. This work is included in the Budget of 1856-57.
14,657	14,657	In progress.
956	2,803	Completed in December 1855.
0	794	This work can only be carried on during the freshes when boats can pass the annicut as the canal is not yet open as far as Nursapoor.
760	5,992	Completed all but a little earthwork.
1,690	7,936	There remains only a small channel yet to be executed.
8,335	9,124	Nearly completed
6,861	7,475	Abutments, piers and wing walls completed.
1,127	1,127	In progress.
23,690	33,613	Three miles excavated to full section.
23	50,941	About 120 miles of branch channel excavated.
11,531	98,348	Finished with the exception of a Lock and Calingula. Widening of Dracharum channel and 4 branch channels.
8,277	20,245	Excavated 9½ miles average 4 yards in depth.
8,823	17,653	Codaitee embankment finished and that of the Nuckala channel nearly so.
4,136	12,406	Completed.
9,102	28,647	About half completed.
2,596	2,658	About ⅓ finished.
3,681	7,564	Completed.
3,532	7,634	Do.
158	158	Nearly completed.
15	477	The expenditure on this work has been suspended, as a revised plan and estimate for the work has been prepared and submitted by the District Engineer Godavery Division.

Description of Work.	Estimated total cost.
1	2
Rajahmundry, Supplemental Estimate.—(*Continued.*)	Rs.
Erecting a Civil Dispensary........	3,990
2 Ferry boats required for crossing the Godavery at Nursapoor and Bendamoor Lunka	700
Excavating branch irrigation channels on the western side of the Godavery in the Masulipatam District	6,015
Estimate for building Boats..	15,000
Erecting groynes to the bank of the Godavery near Ramachendrapoor...	5,000
Emergent Works.	
Excavating Calvacherla channel from Nedadavole Mudoogoo near Somasweram to the old Boopiah Calvah.....	13,048
Total Rajahmundry....	5,35,006
Masulipatam.	
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Branch channels from Ralangee along the western side of Gostanady ..	4,110
Godavery channels	726
Small do.	5,786
Small Irrigation Works....	916
Constructing 50 Ferry boats for crossing the Godavery channels.	7,200
Works not included in any Budget	
Improving the Chinnapooram Canal......	8,517
Embankment from Bezoarah hill to Ibrahimpatam....	22,675
Emergent Works.	
Drainage tunnel under Poolairoo channel....	1,490
Moonsiff's Court House at Masulipatam....	120
Total Masulipatam....	51,540

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and explanatory Remarks.
3	4	5
Rs.	Rs.	
2,930	3,990	Completed in September 1855.
700	700	Do. in November 1855.
3,036	3,047	About 5 miles of channel excavated.
1,210	12,510	About 400 tons of boats have been completed.
2,540	4,950	Completed.
3,657	11,652	This work was commenced by Lieutenant Haig and continued on by Captain Rundall in anticipation of its being included in the Budget of 1856 57 and sanctioned, but the estimate for the work was returned by Government for further information.
1,59,587	4,02,665	
0	0	This work has not been commenced for want of labourers.
46	517	Nearly completed.
5,685	5,762	5 Channels nearly completed.
172	916	Completed.
1,300	7,146	Nearly completed.
4,437	8,517	The balance of the estimate has been spent, but the communication between this and the Masulipatam Pettah canal has not been effected. Owing to the necessity of giving, in consequence of the loose nature of the soil, a larger area and greater side slopes than were allowed for the estimate is totally insufficient and the work cannot be made effective without a further grant of money.
7,968	22,675	Completed 30th November 1855.
864	864	Nearly completed.
118	118	Completed.
20,590	46,515	

Description of Work.				Estimated total cost.
1				2
GUNTOOR.				
Works in the Budget of 1854-55, *excluded from that of* 1855-56.				
Restoring the Cuncherloo Tank, and constructing Calingulah to do.....				3,287
Restoring the Mundathe Tank, and supplying channel.....				442
Constructing a Calingulah to Peddaparmy Tank.....				528
Constructing sluice to Rittapully new tank and Doolahppa tank				571
Constructing sluice to the Mungalagherry tank......				169
Do. do. to the Kotany tank....				193
Constructing a raised road with Bridges across the wet land fields under the Sandole tank......				1,360
Improving the District road from Guntoor to the Village of Munchella, distance 11 miles leading to Nizampatam Baupetla, &c....				8,622
Constructing Moonsiff's Court House at Kolakaloor......				1,532
Do. do. at Baupetla.......				1,630
Do. do. at Kurampoondy..				1,410
Do. 4 Bridges and 1 inverted arch to the Menchella road........				4,278
Total Guntoor...				24,022
NELLORE.				
Works in the Budget of 1854-55, *excluded from that of* 1855-56.				
Excavating Canal from Ammun Covil to Doogarazepatam.....				47,275
Small works of irrigation..........				5,227
56 Miles of road, from Goodoor to Ootkoor in Cuddapah....				65,000
Sundry Irrigation works........				1,872 542
Cavelly Talook Cutcherry				2,578
Constructing new Salt platform at Kistnapatam Division..				753
Works not included in any Budget.				
Construction of Boats	1,006	5	4	
Deduct amount estimated for a boat over Chippalaroo..	245	8	0	
	760	13	4	761

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
0	2,002	This work with the exception of the Calingulah was completed, but having since been much injured, the execution of it was suspended.
442	442	Completed.
0	0	The execution of this work is suspended on account of the insufficiency of the estimate.
0	0	This work not being required at present its execution has been suspended.
128	128	Completed 30th October 1855.
129	129	Do. do.
1,000	1,282	Completed in 1855.
1,337	6,305	8 Miles metalled and completed. Another coat of gravelling is required to render the same efficient, for which the unexpended portion of the Estimate will be applied for.
445	445	Foundations laid, Doors and Windows completed. Delay occurred in the selection of the site by the Judicial authorities
550	740	Foundations laid.
542	610	Completed with the exception of roofing. Delayed from the difficulty of procuring Teak Timber, &c.
1,697	3,426	Two tunnels and one inverted arch completed, and a Tunnel finished with the exception of the covering.
6,270	15,509	
10,869	44,404	The Canal close upon completion. 1,27,960 cubic yards of earth work having been removed during the year. Planting has been somewhat expensive and from the failure of the monsoon not very successful.
1,209	4,402	All but five works have been completed up to the 31st October 1855.
3,312	64,869	Completed March 1856. The Ghaut is not passable for carts.
323	2,247	Completed 9th October 1855.
1,090	2,620	Do. 30th December 1855.
514	1,355	Do. 30th do.
336	409	7 of the 9 boats have been constructed up to the 31st December 1855 and two remain to be done.

Description of Work.	Estimated total cost.
1	2
NELLORE.—(*Continued*)	Rs.
Building a District Moonsiff's Court at Goodoor	1,161
Building Ongole Post Office..........	400
Repairing Singaroy Condah Banenasy Pond.....	351
Erecting 109 Ventilators to Zillah Jail......	218
Repairing Espully Bungalow in Ta'munchy Talook........	390
Emergent Works.	
Building a room for Prisoners and a shed for Peons in Ravoor Talook..	240
Digging a Channel between the Pennair and the Golacondacoor Lootoom to supply the Nellore Tank..........	1,757
Building a Sluice to the Pullipaud Tank in Ravoor Talook..	234
Total Nellore...	1,28,759
CUDDAPAH.	
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Nundy Canama Ghaut...	48,398
52 Miles of the Cumbum road......	45,217
Superintendence........	4,000
Removing chief obstacles between Pcelair and Coodairy 74 miles.........	3,164
Cuddapah and Chennoor road	6,436
Bridges over the Boogga and Rollah rivers near the Cuddapah Cantonment......	20,162
Supplemental........	*18,168
Works not included in any Budget.	
Cuddapah and Bellary frontier road...	56,000
Poddatore extension line of road......	20,000
Emergent Works.	
Cumbum Tank Sluice..	3,840
Budwail large Tank....	2,300

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
918	918	The structure completed, but plastering of Chunam in progress.
167	167	Materials under preparation.
315	315	Excavation nearly completed.
17	195	In abeyance; plan of new Jail not having been approved of by the Inspector of Prisons.
134	134	Repairs of a sundry nature in progress.
63	63	Materials under preparation. This work is included in the Budget of 1856-57.
1,563	1,563	Not complete, the excavation not being made to the required depth for which a further expenditure will be needed. This work was undertaken on the recommendation of the late Civil Engineer in consequence of the head of the new supplying channel of the Nellore Tank being obstructed by an accumulation of sand.
234	234	Completed 30th October 1855.
21,063	1,23,895	
13,603	49,233	Original estimate completed in April 1856. This Ghaut is passable for carts but a great deal of work is still required. Supplemental Estimate prepared and submitted to Government for completing the pass at an estimated cost of Rups. 50,000.
23,415	23,415	25 Miles completed. This road is a continuation of the 63 miles of the Cumbum road in Nellore
1,972	1,972	This road has been marked out, a distance of 96 miles as reported by the Civil Engineer.
1,473	6,435	Completed in August 1855.
9,023	29,148	Bridge across the Boogga finished on 1st April 1856. Six out of 12 arches of the bridge across the Rollah had been turned, the rest are in progress. *This item is included in the Budget of 1856-57. Rupees 4,974 of this to be met from Pagoda funds.
4,498	56,072	Completed April 1856.
6,928	21,921	The road is far from being completed, but as the sanctioned amount is all expended the work has been stopped.
3,811	3,811	Completed in December 1855.
1,468	1,468	Work in progress.

Description of Work.	Estimated total cost.
1	2
CUDDAPAH.—(*Continued.*)	Rs.
Small works of Irrigation..	1,792
Constructing an Aqueduct and closing breach of Oobuldavanee Tank in the Poolyvaindla Talook........	903
Constructing a Dyke and 3 Vauganies on the left bank of the Paupugnee river near Appiapully..	3,592
Repairing Katacanepully Tank in the Doopaud Talook..	710
Small works of Irrigation..	1,584
Total Cuddapah....	2,36,256
BELLARY.	
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Bellary Talook Cutcherry..	6,408
Auloor do.	3,503
Avantapoor Hozoor do. and Record room......	539
Constructing 4 wells of Irrigation Darogee	931
Road from Bellary to Herahall..	25,543
Do. from do. to Darogee..	12,725
Do. from do. to Humpsaugor..	51,003
Basumpully Tank supplying channel..	1,260
Excavating a new road channel Head sluice and surplus Calingulah for the Naglapoor Tank......	4,599
Converting part of the old Hozoor Cutcherry into a Record room and providing record stands........	775
Connecting the Bellary Tank bund with Herahal High road....	245
Do. do. with the principal road to Cantonments..	195
Emergent Works.	
Constructing Aqueduct for conducting water from the Bowry to several wash houses attached to Barracks of Bellary....	3,060
New roofing and flooring the Gun Sheds for heavy Ordnance outside the Arsenal in the Lower Fort of do.	2,720

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
1,530	1,530	Completed December 1855.
49	765	Work stopped by order of the Collector. Soon after this work was commenced the breach was enlarged after a heavy storm and as the estimate was then considered insufficient the work was stopped.
75	2,856	Completed in November 1855.
286	286	Work in progress.
830	1,487	Completed in December 1855.
68,961	2,00,399	
197	6,499	The plastering of the terrace in progress.
1,149	1,796	In progress.
2	488	Completed 15th January 1856.
232	831	3 Wells completed on the 10th January 1856 and the other is in progress.
770	25,415	Completed.
5,758	12,715	Almost completed but work suspended for want of funds.
5,970	50,823	Completed 6th October 1855.
264	1,091	The cleaning of the bed of the channel required by Village labor is now in progress.
1,368	3,262	The Calingulah to the Somalapoor Nullah is in progress.
330	766	Completed 29th February 1856.
10	131	The work in progress.
1,789	1,789	Aqueduct has been built up with earthen pipes from the Bowry to the wash home to the length of 2,400 running feet. This work is included in the Budget of 1856-57, but was commenced on emergency in 1855-56.
2,064	2,064	Walls and Pillars have been raised with Stone in chunam roof terraced with Nugger wood Beams, Joists, Brick on edge in chunam and a levelling course also laid over the terrace roof and parapets built up, the stone floor is also nearly raised.

Description of Work.	Estimated total cost.
1	2
Bellary.—(*Continued.*)	Rs.
Making certain alterations in two end stalls of the temporary stables for sick Horses No. 24 in the Cantonment of Bellary for slinging Horses	270
Raidroog road........	1,000
Culliandroog road........	1,500
Coodair road........	1,250
Bellary road	1,750
Camlapoor and Paupenaiken milly road....	2,000
Rebuilding the Buchanhully annicut across the Chinna Huggry river...	11,100
Total Bellary....	1,32,376
Kurnool.	
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Constructing a Talook Cutcherry at Chagulmurry..	2,103
Constructing a well in Eskapully....	370
Constructing two Village wells..	163
	120
	283
Constructing a Bridge of 2 arches across the Woota Wagoo nullah on the high road from Ghooty to Kurnool..	2,176
Additional work for deepening the foundation, &c. of the above as per letter from the Civil Engineer, dated 2nd February 1855..	582
Rebuilding the town wall of Kurnool..	6,825

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
293	293	Completed 29th April 1856.
2,104	2,104	Do. February 10th, 1856.
1,679	1,679	Completed with the exception of about 3 miles near Combadoon.
705	705	Approaches to the Pennair river near Boodygooma partly formed, and a few miles between Yaparaul and Bellagoopa completed.
218	218	Completed from Yaparaul to Poollumpully, beyond which portions were done in the famine season.
1,772	1,772	This road is nearly finished. There is some drain and channel work yet to be done for which a further sanction is required.
2,473	2,473	5 Kilns or 2,68,000 burnt bricks, 50,000 unburnt bricks, 479 cart loads of fuel, 1,280 Parahs of chunam and other necessary materials are ready on the site up to the 30th April a commencement was made of clearing the sand and stones in the river bed to lay the foundation to the level of the silt of the sluice, but it was stopped on account of heavy freshes in April earlier than any which occurred last year The remaining bricks, covering stones and other materials necessary are in progress of collection so as to commence the work after next October. This work is included in the Budget of 1856-57, but was ordered for immediate execution.
29,147	1,16,914	
1,101	2,092	Completed on the 12th October 1855.
370	370	Do. on the 30th April 1856.
26	30	This work is postponed on account of the death of Bommy Reddy, the Mussal Reddy of this village, who had agreed to pay one half of the estimated amount.
0	30	Stones are being collected.
0	2,154	Completed on the 10th June 1855.
582	582	(Completed on the 10th June 1855.)
4,549	4,742	The whole of the Ramps and Drains are completed and ¾ of the Town wall done. This work was badly completed. The repairs of breaches are progressing on an emergent estimate amounting to Rupees 1,967 framed by the Assistant Civil Engineer out of the unexpended portion of the original estimate.

Description of Work.	Estimated total cost.
1	2
	Rs.
KURNOOL.—(*Continued.*)	
Small works of Irrigation..	1,214
Strengthening the Bund and constructing a Calingulah to Coorroocoondee Maucha Veerappah tank..	1,926
Rate increased to the above work as per orders of the Board of Revenue D. P. W. dated 27th April 1854, No. 365....	205
Works not included in any Budget.	
Repairing Mr. Scott's Chuttrum at Gazoolapully..	480
Constructing a Cholera and small Pox Hospital at Kurnool..	475
Increase of rate allowed for timber and Carpentry, &c. of the above as per letter from the Civil Engineer, dated 24th June 1855, No. 305....	150
Total Kurnool......	16,789
CANARA.	
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Road from Arbyle Ghaut to Ankola........	6,714
1st Class Bungalow at Byndoor........	2,302
Constructing 9 wooden bridges over the nullah on the road from Jalsoor and Cassergode road..	2,639
Road from Pane Mangalore to Oopenungady......	9,900
Extension of the Custom Quay at Mangalore....	1,880
Wooden bridges on the Sircy and Siddhapore road......	9,960
Tracing a new Ghaut and road from Yellapoor to the Southern bank of the Black river....	5,000
Tracing the Hullehul and Tinnay Ghaut line....	5,000
Charmundy trace and road in lieu of Cuddatakul Ghaut....	3,000
1st Class Bungalow at Devimunney........	1,802
Cutwal's Choultry at Mangalore........	931
Post Office at Sircy....	500
Cutwal's Choultry at do..	771
Improving the landing place at the Mirjan ferry	1,343

Expenditure during the year.	Total Expenditure	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
803	1,167	Completed on the 30th April 1856.
1,842	2,086	Do. do. do.
79	79	Materials to the amount of Rupees 79 purchased and secured. This being insufficient another estimate amounting to Rupees 804-15-9 has been submitted for sanction.
395	581	Completed on the 30th April 1856.
9,747	13,913	
174	7,275	Completed.
404	2,186	Nearly completed.
182	2,350	Nearly completed.
4,981	9,722	Opened for bullock traffic on the 10th March 1856, but require bridging before it can be very useful. The funds which ought to have been spent in doing some of the Bridge work have all been expended in earth work.
424	1,879	Completed.
3,303	8,922	Nearly completed.
1,443	2,894	A very perfect Ghaut trace 8 miles in length have been opened as a Bridle path. No superintendence available to carry on the traces above the Ghaut, consequently the season was lost.
3,375	3,375	From the Hullial junction to a little beyond Juggleput a road 4 yards wide, 14 miles 5 fur. 90 yards long has been opened, hence a bridle path for 2 miles 7 fur. 64 yards. The Tinny Ghaut 1 „ 5 „ 50 „ has been opened 6 fur. to 4 yards, the rest bridle path.
26	5,373	Completed.
34	1,816	Do.
160	941	Completed 4th April 1856.
4	438	Completed.
15	716	Do.
41	1,550	Do.

Description of Work.	Estimated total cost.
1	2
CANARA.—(*Continued*)	Rs.
Works not included in any Budget.	
Road from Buntwall to Ooperunguddy..	8,081
An enclosure wall at the Quay of the Sea Custom House at Mangalore..	535
A Court House for the Principal and other Suder Ameens at Honore. ..	3,660
Sea Custom House at Ankola....	461
Salt Depot at Ankola..	263
Court House for a Sudr Ameen and Moonsiff at Sircy	4,043
Shingawaree Ghaut road......	9,850
Tahsildar's Cutcherry at Honore....	3,845
Moosafurkanah on South side of the Oochil ferry..	42
Perdoor and Mulpay road........	5,988
Police Tannah at Devimunny...	28
Dams in the Goorpoor river....	3,000
Groynes at the Mangalore Harbour's mouth......	385
Total Canara.. ..	91,923
CHINGLEPUT.	
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Pondoor tank Calingulah stone revetment..	2,024
Two Ferry boats placed on the Palaur at Chingleput and Vapunjary ...	673
Road from Chunambutet to Tindevenum........	1,795
Bungaroo channel or Casavaram Annicut	12,836
Small works of Irrigation..	1,042
Do. do.	8,362
Do. do.	1,610
Do. do.	1,009
Do. do.	4,445
Ponnary Tanah Chavady...	324
Peishcar's Cutcherry at Streehury Cotah	1,730
Road from Ponnary to Northern Trunk road....	2,213
Improving the road from Trivallore to Ramunjary........	3,982
Building a Prisoners' Guard room at Goodoovanjary....	516
Govindavaudy tank stone revetment..	2,542

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
467	467	In progress.
410	410	Completed.
377	3,371	Do.
77	461	Do.
79	262	Do.
1,058	3,292	Do.
130	9,296	Do.
246	3,756	Completed in September 1855.
14	34	Completed.
88	5,888	Do.
10	11	In progress.
1,904	1,904	Two-thirds completed when owing to an unforeseen accident the work was suspended. The part of the bund completed was breached in three places. On the 2nd May there being every likelihood of occurring more and it being very late in the season stopping the work was unavoidable.
0	0	Not commenced. Could not be commenced till May, the Dams requiring all the Executive Officer's attention.
19,426	79,288	
82	1,950	This work is delayed from the work people, complaining that the rates are insufficient.
938	938	Of this 820 Rupees were laid out in the construction of the Boats, Rupees 16 have been paid for cocking the seem of one of them and the remainder was charged for their removal.
30	1,425	Nearly completed.
5,262	5,638	Sinking wells and building foundations. In the Budget of 1854-55 is entered Rupees 9,932 as the estimated amount for this work, which was found to be insufficient on the work being commenced and a revised estimate sanctioned on the 13th June 1855.
581	994	Completed.
4,313	4,469	Several of these works have been completed, others in progress.
1,083	1,083	Nearly completed.
934	934	Completed.
2,118	2,118	Several of these works have been completed, others have not been commenced on account of the insufficiency of the rates.
157	157	Collecting Materials.
0	0	Not commenced.
1,210	1,210	Two tunnels are built and a portion of the earthwork done.
1,166	2,109	Earth work completed. Masonry work is being executed.
48	48	Materials being collected.
2,371	2,371	Completed in December 1855. Work well done, the remainder of the estimate is not required.

Description of Work.	Estimated total cost.
1	2
CHINGLEPUT.—(*Continued.*)	Rs.
Construction of Causeway across the Palaur river near Chingleput...	31,770
Supplemental Estimate....	2,349
Constructing Shediancooppum Lock Calingulah, &c.....	15,469
Supplemental Estimate........	5,500
Do. do.	7,000
Improving the Backwater between Madras and Pulicat....	22,018
Works not included in any Budget.	
Cootumbaukum tank ...	475
Yodayaurpaukum tank..	1,614
Paraundoor tank...	1,045
Repairing the road from Elphinstone's bridge to Paupan's Choultry... ...	1,288
2 Ferry Boats for Backwater at Lingachetty Choultry........	726
Annicut across the Adayar river for Artillery purpose......	13,464
Total Chingleput....	1,47,851
NORTH ARCOT.	
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Repairing the ruined Tank of Nagputla in Chittoor Talook. ..	6,066
Excavating Careevadoo channel	759
Road over Caniembady Ghaut, leading from Vellore to Arnee, in Vellore Talook........	1,167
Road from Poloor to Arnee, Arcot, and from Poloor to Trichinopoly in Poloor Talook	1,223
Constructing a Talook Cutcherry at Poloor...	1,069
Small works of irrigation......	2,005

Expenditure during the year.	Total Expenditure	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
10,245	37,746	Completed in August 1855
13,705	29,158	The lock completed in October of last year, the gates under-hanging. The Calingulah having foundations and basement completed. The expense of these works has been increased by great difficulties in getting down the foundations, by the use of hydraulic cement instead of common lime by the great cost of the bricks used in them and by the inexperience of the builders.
8,844	18,323	The 3 cut offs completed, with the exception of partial deepenings. Planting has been somewhat expensive and from the failure of the Monsoon not very successful.
152	152	These works are delayed from the work people, complaining that the rates are insufficient.
1,080	1,080	
663	663	
1,288	1,288	Completed 7th April 1856. Work done well.
779	779	Completed. 600 Rupees were paid for the construction of these Boats, 77 Rupees for cocking the seems and 102 were paid for their removal.
10,430	10,430	The body Southern wing wall and Southern sluices are finished and the central sluices and North wing wall incomplete.
67,509	1,25,063	
100	5,204	Nearly completed.
107	617	Do. do.
0	607	Up to February 1855 when an estimate of Rupees 27,260 was sanctioned for constructing the road from Vellore to Arnee. Rupees 607 only had been expended in improving the Caniembady Ghaut and Mr. Sullivan then considered it advisable to reserve the balance until he had seen what general improvements were to be effected by the larger outlay.
421	1,223	Two-thirds completed.
0	103	Materials being prepared. This amount was advanced by the Collector for the preparation of materials, but no further money was expended in consequence of Mr. Assistant Surveyor Dick being fully engaged in superintending other works.
220	1,465	Nearly completed.

Description of Work.	Estimated total cost.
1	2
NORTH ARCOT.—(*Continued.*)	Rs.
Small works of irrigation	1,808
Do. do. do.	1,914
Additional Estimate for Nagaputla tank....	1,301
Restoring Panamadunghy tank....	7,311
Small works..	5,736
Restoring Aunatangul ruined tank....	1,699
Police Cutcherry at Vencatagherrycottah.	483
Do. at Damulcherroo..	483
Addition of 2 rooms at Raneepett Police Cutcherry....	145
A Drain to let off water from Chittoor Fort Ditch..	362
Planting fruit trees along the banks of channel leading to the Cheyaur Annicut......	2,509
Improving the road from Arnee to Teroovanamalay....	9,187
Restoring Pullicondah tank....	4,210
Do. do.	985
Do. do.	515
Constructing Cheyaur Annicut Subsidiary works....	2,647
Constructing Chittoor Talook Cutcherry, ...	2,243
Supplemental Estimate......	401
Constructing road between Damulcherroo and Kulloor including the Ghaut, 9 Miles..	11,881
Completing road from Chittoor to Poothulput, 10 Miles..	3,057
Constructing Police Cutcherry at Pettamboor....	1,094
Works not included in any Budget.	
Completing road from Vellore to Punnatoor on Trunk road No. 10, 10¼ miles.....	8,490
Portion of 2nd class road No. 3 from Palaur Annicut to Wallajahnugger, 3 miles....	3,960
Constructing a tunnel on the Vellore road........ ..	152
Road leading from Pengaragoontah tank bund to Gooriattum.........	2,379
Poinay east channel.....	9,985
Ilawady and Covilavadoo channels from Cheyaur channel....	1,090
Head sluice to new channel from left bank of Poinay	3,268
Aqueduct over Damul spring channel.....	884
Poodooputla Dalavoy tank..	1,933
Rebuilding the Yellatoor Annicut across the Mooroogundanuddee; cutting new channel; and constructing Calingulah......	1,977
Repairing Murcaulcooppum tank........	362
Repairing Mogaralah tank	371
Do. Thalaloor tank Calingulah.....	764
Constructing a Calingulah, and 2 sluices to Cundacoopen surplus tangul........	400
Small works of irrigation	1,710
Supply channel to the Keelourkatoor tank and Chittairy..	1,211
Small works of irrigation....	779
Constructing road from Wallajahnugger to Sholinghur....	6,845

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
24	914	One half finished.
63	1,692	Nearly completed.
471	982	Do. do.
1,764	6,992	Turfing in progress.
1,727	4,398	Three-fourths completed.
450	1,850	Completed in December 1855.
22	122	A portion of the Materials prepared.
0	150	Do. do. do.
45	145	Completed in August 1855.
18	294	Nearly completed.
1,346	2,109	Do. do.
616	9,187	Completed in December 1855.
2,384	5,742	Completed with the exception of turfing the bund.
552	2,550	Nearly completed.
886	3,129	Do. do.
4,509	11,722	The embankments are completed throughout the distance of 19 miles and metal being collected, the tunnels are ½ built and road dams nearly finished.
0	511	
94	1,094	Completed in September 1855.
8,490	8,490	Nearly completed.
3,571	3,857	Completed in March 1856.
15	143	Nearly completed.
177	2,222	Do. do.
175	10,079	Completed in November 1855.
896	1,090	Do. do.
2,190	3,268	Do. do.
102	472	In progress.
150	1,617	Nearly completed.
1,240	1,725	Do. do.
0	140	Half completed.
99	235	Two-thirds completed.
490	490	In progress.
100	100	Do.
255	635	Do.
359	559	Do.
120	195	Do.
4,038	6,845	Completed in December 1855.

Description of Work.	Estimated total cost.
1	2
NORTH ARCOT—(*Continued.*)	Rs.
Emergent Works.	
Repairing Checkaud Hissa tank	2,420
Constructing an Annicut to the Eroombaukum channel head sluice....	641
Repairing the bank of the Vaniembaudy tank, lengthening and heightening the stone facing, and building Calingulah......	2,559
Raising, widening and repairing Pyanoor tank..	1,316
Repairing Chamulconah tank....	3,046
Repairing Nulliyancoolum Streerungarajpooram Hissah tank... .. .	636
Rebuilding Allacoopum bridge	553
Constructing Agarum river bridge....	12,142
Constructing street drain in Bourdillonpettah at Chittoor....	295
Total North Arcot....	142,458
SOUTH ARCOT.	
Supplemental Estimates.	
Road between Cullacoorchee and Oolundoorpett	2,000
Bridge over Marcanum river......	3,000
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Road from Salem boundary to Cuddalore......	66,258
Improving the harbour of Cuddalore and cutting a canal from the river Vellaur near Porto Novo to the Paravenaur river........	47,000
Additional sanction........	8,000
Sundry small works of irrigation.....	1,056
Do. do. do.	653
Do. do. do.	496
Constructing Annicut across the Vicravaudy river	14,005
Extending the Annicut across the Vellicul channel......	2,175
Constructing a Lock in Khan Sahib's channel......	5,211

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
250	250	In progress. This work belongs to the Budget of 1856-57, but was undertaken on emergency.
300	300	In progress.
300	300	In progress. This work belongs to the Budget of 1856-57, but was undertaken on emergency.
1,301	1,301	Nearly completed.
1,000	1,000	In progress. This work belongs to the Budget of 1856-57, but was undertaken on emergency.
570	570	Nearly completed.
553	553	Completed in April 1856.
5,000	5,000	Foundations completed, piers in course of construction. This work is included in the Budget of 1856-57, but was undertaken on emergency.
104	104	In progress. This work is included in the Budget of 1856-57, but was undertaken on emergency.
47,694	1,14,342	
2,403	2,403	Opened from end to end on the 10th March 1856.
1,540	1,800	East abutment and pier finished, West abutment being raised. Timber work being fitted.
14,949	66,258	Road is formed throughout.
9,103	47,863	Canal still requires deepening. The harbour works in progress.
57	410	Five of the works included in the estimate have been finished, but the contractors who received advances for executing the remaining ones having failed to do so, the advances were recovered from them. This sum only has been expended from the advances brought to account in last year.
300	300	Materials under preparation. The Tahsildar has been fined for neglecting the execution of these works.
31	404	7 small works were completed last year and one in the current one. The balance of estimate belonging to the remaining work found unnecessary.
10,268	10,268	Annicut and one Calingulah finished, main channel, rock being removed and channels in progress.
1,436	1,808	Completed in April 1856.
3,481	4,847	Completed in January 1856 with the exception of some plastering which is now being done. By a clerical mistake the sum of Rupees 1,316 was entered in last year's account instead of Rupees 1,366 which was actually laid out.

Description of Work.	Estimated total cost.
1	2
South Arcot.—(*Continued.*)	Rs.
Road from Porto Novo to Trunk road No. 9	19,394
Constructing road from Tindevanum to Thyaur......	5,005
Road between Tindevanum and Mercanum....	9,963
Road from Pondicherry to Mylum	10,500
Road between Villapoorum and Villianoor....	5,542
Road from Veeranum tank to Chillumbrum	810
For a tunnel on Road No. 1....	142
Trecullore and Chengama road........	2,000
Road from Paprumpett to Guddilum......	48,094
Metalling road between Vicravaudy and Oolundoorpett..	32,234
Works not included in any Budget.	
Improving the Munjacoobe tank bank at Bhowenghcrry and rebuilding the Cottalum Annicut at Cullacoorchy....	657
Constructing a sluice and cutting projection in Vadavaur limits of Caroongoody....	4,400
Constructing sluices to the Tanks of Nossel and other villages at Tindevanum	685
Do. branch sluices, &c. in Ponneyaur channel at Paukum..	178
Extending the annicut in Permacoondum and improving the Pooneyaur channel, &c. at Trecallore...	953
Do. a Flaff Staff at Cuddalore......	2,049
Road from Cuddalore to Goondalum and Coodecaudoo Salt pans........	582
Emergent Works.	
Constructing a Jetty near the Sea Custom House at Porto Novo...	392
Embankment, &c. in the Mylum road (limits of Vanoor)....	939
Total South Arcot....	2,94,373

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
363	19,395	Completed.
932	4,924	Completed. Repairs are required, for the execution of which there are neither superintendence nor sufficient money.
1,546	9,725	This road has been completed in 1855, but repairs are required. The expenditure of last year included, the advances made and accounts being now closed the actual expenditure has been inserted herein. Sanction has since been received for repairing it out of the local funds.
3,506	10,500	Completed in April last. This sum not having been found sufficient a further estimate has been sanctioned which is now under execution from the local funds.
841	5,500	Completed in December 1855. The expenditure entered in last year's account exhibited the total advances, but the actual amount laid out is herein inserted.
795	795	Completed within the year. The advances made in last year, were only expended in the current one.
132	132	Do. do. do.
702	1,900	Completed in last year. The sum entered in last year's account was the advances made. The account being now closed the actual expenditure is herein entered.
5,801	47,919	Road completed; the side slopes require improvement.
7,841	29,120	Metalled throughout with the exception of new road embankment.
616	616	Completed during the year.
2,825	4,000	Do. do.
418	538	Most of the works are finished.
60	156	2 Sluices were finished in 1855 and the remaining ones are in progress.
115	871	The improvements at the channel have been completed and the Annicut work is in progress.
1,960	1,960	Completed with the exception of plastering which has since been done.
582	582	Completed in June 1855.
392	392	Completed during the year. This work is included in the Budget of 1856-57, but the Assistant Civil Engineer states that it was executed immediately on the receipt of the sanction as it was much needed.
939	939	Do. do. do.
73,964	2,76,325	

Description of Work.	Estimated total cost.
1	2
SALEM.	Rs.
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Road from Yarcode to Darampoory	10,000
Opening a Cattle Ghaut on Salem side of the Shervaroy Hills	3,500
Anundapooram Agraharum tank, annicut and channel.....	2,201
Restoring Pethamputty ruined tank.	162
Tullavassel annicut and channel......	3,812
Small works of irrigation.....	691
Restoration of old tanks....	858
Constructing a Soldiers' shed at Salem...	530
Do. at Vaniembady..	530
Opening a road from Nerinjeepett to Salem, and for cutting Jungle along the line of the channel	1,600
Works not included in any Budget.	
Magazine for a Detachment of Veterans.....	247
Restoring the Ummapollium annicut and channel.....	2,386
Narasingapoorum bridge	1,052
Wodiaputty bridge....	1,332
Restoring Curpumputty tank....	736
Restoring Poodooputty Malary tank....	471
Restoring Poodooputty Govindoo tank	292
Constructing dams to the Moganoor channel	1,105
Total Salem ...	31,538
TRICHINOPOLY.	
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Small works of irrigation......	982
Do. do.	778
Improving the Streenassanellore Voikal, Parea Voikal and Pulla Voikal, supplying channels......	6,228
Improvement of Wycondam head sluice....	1,894
Forming a road from Poodoopolliem on the old road between Trichinopoly and Karoor to Kuttilully......	6,400
Converting the present Jail Guard Room into a Granary..	316
Superintendence....	50
Road from Trichinopoly via Lalgoody to Arealore ...	4,993
Pollumpodee and Trimuldevee road leading from the former road to the Coleroon...	1,499
Constructing a Bridge across the Chinnaur river on the trunk road, No. 8.	4,499
Rebuilding do. do.	3,117
Constructing the trunk road, No. 8 from Vellaur to Coleroon ..	57,263

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
4,503	10,000	Completed 29th February 1856.
901	3,612	Do. 16th August 1855.
486	2,058	Do. 30th April 1856.
27	160	Do. 28th October 1855.
1,721	3,027	Do. 20th December 1855.
67	667	Nearly completed.
185	884	Do. do.
458	458	Completed 6th October 1855.
392	392	Walls completed, roof in progress.
842	842	The Bullock path from Salem to Poolamputty is almost finished, a great portion of the Cart road from Yeddapaudy to Poolamputty has been executed, as levelling the road, removing stones and clearing jungle, road dams and drains are in progress.
262	262	Completed 3rd April 1856.
2,377	2,377	Do. 6th August 1855.
1,052	1,052	Parapet walls and approaches are in progress.
334	334	In progress.
67	713	Completed 20th December 1855.
178	240	Do. with the exception of the sluice and Calingulah.
109	109	Earth work in progress.
362	780	Completed with the exception of 4 Aqueducts which will be constructed after the channel has been widened.
14,413	27,967	
365	978	Completed at the end of October 1855.
164	680	Do. 15th June 1855.
2,245	6,135	Do. 15th December 1855.
1,005	1,852	Do. 16th May 1855.
1,012	6,328	Do. 31st December 1855.
311	316	Do. 5th August 1855. (bracketed with next row)
4	50	
2,029	4,990	Do. 15th October 1855.
678	1,499	Do. 15th December 1855.
298	5,653	Do. in May 1855.
2,806	57,263	Do. do.

Description of Work.	Estimated total cost.
1	2
TRICHINOPOLY.—(*Continued*)	Rs.
Works not included in any Budget.	
Gravelling, &c. the Tanjore road	3,041
Constructing a Calingulah of discharge at the head of Weyacondan......	2,710
Sundry works of irrigation........	2,475
Constructing sluice of discharge on the bank of Iyaur for draining the surplus water of Conasalem and other villages....	2,110
Do. a sluice on the bank of Gollapollian tank...	100
Additional apron to Nunthyar annicut	1,800
Emergent Works.	
Constructing a Vaugany on the right bank of Codamoorty in the limits of Matachintamony..	216
Constructing flooring under arches of the Cauvery bridge...	2,000
Extending the Tottiem Chinna Voikal in the limits of Iyaloor and Seelapooliapootoor......	1,647
Constructing a Vaugany on the bank of Oopaur in the limits of Teroomungalum......	135
Total Trichinopoly ...	1,04,253
TANJORE.	
***Works in the Budget of* 1854-55, *excluded from that of* 1855-56.**	
Altering the course of the Poodooputnum Oopenaur......	7,550
Small works of irrigation	6,122
Head sluice to Poolavenar....	2,000
Altering the course of the Umbenar for the improvement of the Port of Tranquebar as well as that of the Navigation of the Veerasholagum river and of the drainage of the neighbouring land......21,091 4 0	
Deduct from Pagoda Funds... .. ..15,000 0 0	
	6,091
Additional sanction..	2,000
Road from Combaconum to Mayavarum and Sheally to the Coleroon at Annakaran Choultry, being part of the Road to Madras....	4,417
Extending the Jetty at the Negapatam port...	7,200
Formation of the road between Tanjore and Manargoody..	8,954
Rebuilding the Record Room in the factory of the Sub Judge at Combaconum....	6,225
Additional estimate..	985
Road No. 27, from Kottoor to Sengundy with bridges and tunnels.. .	4,873
Constructing a bridge across the Adaken Chetty stream on road No. 9, between Tanjore and Poodoocottah..	1,128
Bridge across the Culloovery on road No. 9, between Tanjore and Poodoocottah......	1,974
Channel from the Adapaur annicut.......	8,579

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
2,882	2,938	Completed 15th March 1856.
420	2,710	Do. 21st do.
851	2,447	Completed.
344	2,063	Do. 24th July 1855.
5	89	Do. 31st do.
552	552	Materials being collected. Work in the bed of river delayed, season being unfavorable and freshes in the Nunthyar.
208	208	Completed 27th December 1855.
2,000	2,000	Do. 15th March 1856.
1,635	1,635	Do. 31st December 1855.
134	134	Do. 12th November 1855.
19,948	1,00,520	
5,180	5,180	Two-thirds of this work completed.
316	5,216	Completed in April 1856.
1,773	1,773	Do. in September 1855.
5,985	8,084	Do. in November 1855.
812	3,427	Do. in December 1855.
1,655	5,825	The extension of Jetty is nearly completed. Deferred owing to the sea being rough.
7,273	7,877	Completed in September 1855.
6,860	6 860	Do. in January 1856.
3,906	3,906	Do. in April 1856.
624	624	Do. in December 1855.
1,716	1,716	Completed in November 1855. These works were reported to have been completed in April 1855, but in the return received for this year, they are stated to have been completed only in November and December 1855.
1,037	7,790	Completed in December 1855. do. do.

Description of Work.	Estimated total cost.
1	2
TANJORE.—(*Continued*)	Rs.
Constructing a road from the lower Coleroon annicut Cottalum.. ..	4,731
Constructing a road from Cusbah Tritarpoondy to Kullimode..	5,546
Improving Manacondanaur river, for the drainage of upland country including Sibbundy..	24,723
Constructing a bridge over a navigable canal between Codumyar and Velliar and improving canal......	3,242
Bridge across the Palavaur on the road from Pundnelloor to Vydeeswaren Covil......	6,660
Works not included in any Budget.	
Small works of irrigation	2,832
Do. do. do.	3,520
Reconstructing Annicut across the Adappaur and a bridge over it on the road from Negapatam to Tritrapoondy...... 5,449	
Deduct Pagoda Funds 1,800	
	3,649
Improving the irrigation of Meenatchee Pamany and Valoor channels..	3,703
Small works of irrigation......	936
Do. do. do.	70
Dam at the head of Ateveeraramar and across Vennaur...	2,713
Small works of irrigation........	9,470
Do. do. do.	856
Constructing sluice and extending the head of Coomiky Monyar......	2,070
Improving Veerasholaganaur.	5,000
Sandy roads....	85
Bridge across the Codechoottyar on the road from Negapatam to Point Calymere....	5,281
Bridge across the Moolliar on the road from Mootoopettah to Vadaraniem......	2,816
Improving the road from Munnargoody to Adharampatam.	6,625
Constructing 7 Bridges on the road from Trivallore to Tritrapoody.....	24,260
Constructing a Choultry for native travellers near lower annicut........	966
Cutting a Canal from Ambanaur to Teroomalvassel........	25,000
Constructing a Moonsiff's Court House at Sheally....	1,318
Constructing Sea Custom House at Nagoor..	2,100
Altering Nunnelum Moonsiff's Court House at Trivallore....	328
Constructing 2 bathing rooms in Sattanoor Soldier's shed	210
Rebuilding a Bridge across the Veerasholagum at Peroonjuiry on the road from Negapatam to Myaverum.	2,548
Repairing trunk road No. 9.........	1,350
Total Tanjore....	2,20,706

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
4,179	4,179	Earth work and 40 tunnels were completed in December 1855. Additional sanction is received to complete the line in June 1856.
5,329	5,329	Completed with the exception of 217 Rupees worth of earth work in the Kullimodoo Niaganun.
11,493	22,563	Completed in September 1855. This work was reported to have been completed in April 1855, but in the return received for this year it is stated to have been completed only in September 1855.
3,232	3,232	Completed in December 1855.
152	6,636	Do. in April 1856.
493	1,921	Completed in October 1855.
1,322	3,441	Do. in April 1856.
127	3,455	Do. in August 1855.
3,365	3,365	Do. in April 1856.
82	362	Do. in August 1855.
31	68	Do. in May 1855.
2,627	2,627	Do. do.
190	9,228	Do. in April 1856.
61	711	Do in November 1855.
1,531	1,531	Earth work completed, but for the masonry the present estimate is insufficient and further sanction is required.
29	3,626	Completed in July 1855.
85	85	Do. in December 1855.
231	5,280	Do. in July 1855.
13	2,816	Do. in April 1856.
132	6,460	Do. in December 1855.
365	23,153	Do. in April 1856.
313	966	Do. in February 1856.
6,180	25,000	Do. in December 1855.
107	1,318	Do. in August 1855.
2,096	2,096	Do. in May 1855.
326	326	Do. in April 1856.
202	202	Do. in May 1855.
1,660	1,660	Arch completed, and wings, spandrils, and blocking course are being proceeded with.
1,308	1,308	Nearly completed.
84,398	2,01,421	

Description of Work.	Estimated total cost.
1	2
COIMBATORE.	Rs.
Supplemental Estimates.	
Bhowany bridge......	3,200
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Head sluice for the Calingaroyen channel....	4,571
Altering and enlarging Neilgherry talook cutcherry......	2,459
Supplemental sanction for the same....	640
Improving and extending the Arakencottah channel......	9,997
Constructing a Chuttrum at Bhowany..	3,156
Constructing the road from the foot of the Hussanoor Ghaut to Vellamoondy via Danackencottah and improving the road from Valamoody to Coimbatore......	6,364
Formation of new road from Malaynpolliem to the brink of the Noyel..	2,236
Works not included in any Budget.	
Elk Hill, cut at Ootacamund...	17,750
New road from Ootacamund to Jackatallah........	31,478
Total Coimbatore....	81,851
MALABAR.	
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Constructing the Pooloor bridge on the road from Angadipoorum to Teroowangady..	1,725
Additional....	206
Constructing a truss bridge at Cannachenam on the Chervayoor and Oorkadow road....	379
Building the Banghy Tapal Moosafarkana....	411

Expenditure during the year	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
5,015	5,015	This Bridge has 5 elliptical arches of 56 feet span each, and piers 12 feet high altogether, its rise 31 feet above the bed of the river and contains 3,120 cubic yards of masonry. The great difficulty in all these works has been the excessive unhealthiness of the country, the excess apparent in the expenditure is due to the unlooked for cost of the Bhowany large bridge.
370	1,861	Materials collected and the work will be commenced as soon as the season of the cultivation of the year ceases.
2,532	3,063	Completed.
5,522	6,977	The channel containing about 1,00,000 cubic yards of excavation has been finished. All available workmen were employed in the Bhowany bridge and the sluices have been delayed in consequence.
1,501	2,944	Completed. Containing 704 cubic yards of masonry and 78½ squares of roofing.
826	5,360	Bridge work has been completed as also a great portion of the road work.
1,108	1,308	15 miles of road roughly made but not metalled.
12,344	16,312	Excavation of about 1,30,000 cubic yards, 4 miles of road done including 3,500 cubic yards of rock blasting and 4,000 cubic yards of revetment. Open for men and animals, will be passable for carts in a few weeks.
22,506	27,551	The road will be open very shortly. Some revetments and rock blasting still remain to be completed.
51,727	70,391	
802	1,752	With the exception of planking the work is completed.
0	31	A portion of materials is ready. This work was deferred pending the receipt of sanction to a revised estimate for Rupees 800.
411	411	Completed.

Description of Work.	Estimated total cost.
1	2
MALABAR.—(*Continued.*)	Rs.
Widening road and building bridges from Cothaparamba to Mutanoor.	16,568
Building a Jail Hospital at Calicut...	1,416
Making the road from Tanoor to Terivaporom towards Cheerpulcherry and building bridges, &c...	1,200
Works not included in any Budget.	
Constructing the Cakatode bridge on the Angadipoorom and Wundoor road..	1,911
Do. the Tiroowaudy bridge on the above road....	206
Improving the Irkoor and Geemoth road, Panoor and Coothaparamba do., Pychee and Wynad do. and the Shevaprom and Ooliel do. in North Malabar..	1,150
Metalling the Cannanore and Tellicherry road at Edakad...	549
Building the Koodaly Manikoonoo and other bridges on the Perambady road	2,376
Improving the road from Tellicherry to Mahe and building bridges ...	311
Building a Verandah to the Jail at Tellicherry and sinking a well	160
Making a road from Peringolum Cootiporom	3,980
Improving the Badgherry and Chombay road	867
Metalling the Quilandy and Badagherry road..	1,698
Metalling the Calicut and Malaprom road at Mumally and building drains....	677
Opening the Calicut Bazar canal..	458
Improving the Chevayoor and Areakodo road..	157
Surveying the Beypore Bar........	250
Improving the Malaprom and Tirovangaudy road and building bridges.	951
Building a Stable and a place of Arms for the Malabar Police Corps, at Malliapooram..	1,760
Improving the Moodaplashery and Areacode road, &c...	1,234
Constructing 12 drains on the Edawana and Wundoor road..	93
Building a Bridge and Sluice on the Pooraparamba Canal..	1,797
Constructing 5 Timber bridges on the Tanore and Cotay canal.. ...	304
Improving the Betul poodiangady and Changampully Koonoo road	543
Constructing 2 Bridges on the Betul poodiangady and Pooraparamba road....	168
Building 2 Bridges on the Chembavattom and Veliangode road.. ...	426

Expenditure during the year.	Total Expenditure	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
2,263	13,338	Road completed in June 1855. The piers and centreing of the bridges raised. Work progressing.
416	1,416	Completed in January 1856.
287	1,007	The work is more than half finished, and has been inspected by the Civil Engineer in March 1856 Two bridges are being built with the amount of this estimate at the recommendation of Mr. Collett.
311	1,911	Completed in May 1855.
72	172	In progress.
61	661	Will be shortly completed.
546	546	Completed 28th December 1855.
0	1,765	With the exception of the rails the Koodaly bridge is completed. The Manikoonoo having failed after completion, the contractor is building it up again. Materials are being collected for the other works.
216	316	Completed 4th June 1855.
7	7	Materials in course of collection. Well has been excavated.
664	664	In progress.
10	10	This work has been stopped in consequence of a new line being projected.
1,654	1,654	Nearly completed.
23	691	Completed in April 1856.
458	458	Do. in May 1855.
27	157	Do. in December 1855.
150	150	Do. in November 1855.
388	784	Materials are being prepared.
375	375	Completed in May 1855.
325	1,475	Do. in December 1855.
93	93	Completed.
805	3,689	Completed in June 1855.
272	452	Do. in December 1855.
15	215	Do. 14th January 1856.
134	134	7 Drains have been finished, 2 not commenced, 1 of which is attributable to the Railway line here not having been determined on yet. This portion of the Calicut and Palghaut road, having been changed the necessity of these Bridges was done away with, and the amount of estimate applied to construction of drains.
19	419	Completed 5th June 1855.

Description of Work.	Estimated total cost.
1	2
MALABAR.—(*Continued.*)	Rs.
Building 20 bridges over the Canal from Chowghaut to Ponany......	1,219
Building a Verandah to the Talook Cutcherry at Cherpulcherry..	565
Constructing the Wottahpallom bridge on Trunk road, No. 5..	3,290
Widening the Nadoowatatode stream on the above road......	111
Rebuilding the Karkadagate bridge on the Angadipooram and Manjery road.......	249
Tracing a line from Manargat via Allapady to Coimbatore..	500
Improving the Angadyporom and Tirtala road....	2,635
Improving the Moodapla Sherry and Cholakel road and building bridges, &c...	911
Making a road from Parla Kadow to Moondoor and constructing bridges, &c.........	2,544
Reconstructing the Moodelyartodo on the Palghaut and Colongode road....	99
Erecting a Light House at Cochin....	4,484
Erecting a Shed in the Burial Ground at Cochin..	100
Emergent Works.	
Constructing 2 timber Bridges on the Sultan's Canal........	115
Constructing the Padana todo and 2 other Bridges on the Cannanore and Mangalore road......	490
Rebuilding the Palaye Bridge on the Tellicherry and Mondole road .	50
Paving the landing place of the Shekkadow ferry on the Tellicherry and Anjerakandy road...	165
Paving the landing place of the Moovaratt river on the Quilandy and Badagherry road....	136
Building the Kadyangat Bridge on the Nedoowanoor and Cootiady road	226
Do. 9 drains on the Kootayee and Makooton road........	106
Do. 11 do. on the Calicut and Oorkadow road	135
Do. 30 do. on the Cheywayoor and Chetkadow road.	313
Do. 30 Bridges and drains on the Cheywayoor and Ariacode road..	470
Do. 1 Bridge on do. do.	24
Do. 1 do. on do. do.	30
Do. the Poodiachera bridge......	1,320
Railing the Record room of the Moonsiffs' Cutcherry at Calicut......	66
Building a Shed in front of the Dispensary at do.	79
Paving the landing place of the Tiroopaudy ferry on the Betut Poodiangady and Tirtala road....	21
Erecting piles to strengthen the foundation of the Apitodu bridge on the Ponany and Fortala road........	186
Building 10 drains on the Tirtala and Choughat road....	152

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatoey Remarks.
3	4	5
Rs.	Rs.	
406	1,433	8 bridges have been completed. The wood work for the rest is ready. Work at one now progressing.
300	300	Materials are ready. The work will commence after the rains.
2,938	3,938	Nearly completed. The arches are turned, but the monsoon set in so early that the face walls and parapets could not be completed. The arches have been covered up with matting.
14	44	Completed 31st March 1856.
227	377	Do. 18th June 1855.
0	231	The line has been traced up to Sathiapara. The work has been stopped in consequence of the illness of the Surveyor who was tracing the line.
1,311	1,811	The road work is more than half finished and 2 bridges and 32 drains are completed.
150	1,054	Completed 22d May 1855.
705	1,705	The earth work with 2 Timber Bridges and 20 drains have been .completed. Metalling and 2 drains are in progress.
17	67	Completed 23d May 1855.
2,921	4,421	Five feet of Masonry work remain to be finished.
15	15	Materials are being collected.
115	115	Completed 6th June 1855.
674	674	Do. in July 1855.
59	59	Do. 9th July 1855.
265	265	Do. in June 1855.
96	136	Do. do.
156	226	Do. in June 1855.
31	106	Do. in July 1855.
60	135	Do. do.
163	313	Do. do.
270	470	Do. 5th December 1855.
24	24	Do. do.
15	15	In progress.
836	836	Foundation has been laid and the upper Masonry work progressing.
66	66	Completed 11th January 1856.
79	79	Do. 13th February 1856.
6	21	Do. in May 1855.
186	186	Do. 5th May 1855.
17	167	Do. 28th May 1855.

Description of Work.	Estimated total cost.
1	2
MALABAR.—(*Continued.*)	Rs.
Rebuilding the Cheroovagara bridge on the Angadyprom and Tirtala road........	150
Building the Kally Raw and Cheroopoya Bridges on the Wondoor and Cholakul road........	884
Building 5 drains on the Angadypooram and Cherpelcherry road .	78
Rebuilding the Kalpathychangsaparra Bridge on the Palghat and Cherpulcherry road........	150
Making certain improvements to the Verandahs of the European Hospital..........	2,273
Reconstructing 9 Platforms to Gun Battery in the Fort..	500
New Gun Shed in rear of the Native place of arms in the Cantonment of Cannanore.	400
Erecting 4 additional Windows in the European Main Guard room at Cannanore....	136
Total Malabar......	69,293
MADURA.	
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Constructing a Bridge of 6 arches across the Goondaur on road No 4.	8,024
Improving the passes leading to the Pulney Hills from Parea Colum, &c....	3,300
Improving road No. 14......	6,230
Constructing Peishcar's Cutcherry at Sinthoputty......	1,146
Improving Sub Collector's Cutcherry Bungalow at Dindigul..	1,017
Improving road No. 13, from the Coast to Nuttum..	8,607
Improving road No. 26, between Sholavandrum and Teroomungalum...	4,801

Expenditure during the year.	Total Expenditure	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
45	145	Masonry work finished.
0	200	Materials are being prepared.
78	78	Completed on the 25th June 1855.
112	112	Do. 28th April 1856.
2,032	2,439	Do. 30th April 1856.
278	278	In progress.
142	142	Do. This work is included in the Budget of 1856-57 but undertaken on emergency.
107	107	Completed 19th April 1856.
25,720	57,543	
1,721	6,426	*Completed on the 31st September 1855, works executed during the year.* Brick in chunam cubic yards .... 95 Rough stone in chunam do .... 33 Plastering square feet..... .... 15,490 *Approaches.* Earth raising lineal yards... .... 139 Metalling do. .. .. 510 Gravelling do. ... . 890 Turfing do. .. .. 671 The remainder of broken stone gravelling and turfing is under execution and will be completed in about 3 months.
61	3,300	Completed 30th August 1855.
2,403	6,148	20¼ miles of the road have been widened and raised. 2 Pavements, 3 bridges and 6 tunnels completed. The remainder of the work is under execution.
809	1,146	Completed 3rd December 1855.
58	1,017	Do. 20th August 1855.
5,727	5,833	3 Miles of the road have been widened and raised. 3 Tunnels are completed and 8 Bridges have been built up to the level of foundation. The remaining works are under rapid progress.
3,146	4,001	A Bridge of 2 arches is completed except plastering which together with the approaches are under execution and the road has been widened and raised for a distance of 1½ mile. Masonry works are constructed at intervals. A sum of Rs. 187 saved in the estimate for the Bridge is being appropriated at the recommendation of the Acting Civil Engineer in plastering the Bridge and building a small tunnel adjacent to it, which were not allowed for in the original estimate.

Description of Work.	Estimated total cost.
1	2
MADURA.—(*Continued*)	Rs.
Improving road No. 15, from Madura to Dindigul..	1,493
Improving road No. 14, between Poövaudy and Paddamatum...... .	551
Constructing a Pavement on Road No. 23....	484
Constructing a Tunnel of 2 vents each, on road No. 18...	165
Emergent Works.	
Rebuilding a portion of, and adding a Record room to the Salt Amildar's Cutcherry at Ramnaud........	335
Rebuilding a sluice and closing breaches in bank of Thenkuriy tank ..	1,198
Converting a Pavement into Road Dam on road No 4, between Madura and Teroomungalum....	46
Filling gravel in rear of revetment of Maravencolum tank bund on do..	300
Repairing Road No. 4, between Madura and Teroomungalum... . .	410
Gravelling and repairing portion of road No. 15, between Madura and Dindigul.......	708
Constructing Pavements into Road Dams on Road No. 26, between Teroomungalum and Sholavaundrum	295
Total Madura....	39,140
TINNEVELLY.	
Works in the Budget of 1854-55, *excluded from that of* 1855-56.	
Constructing a sluice and rough stone revetment to Peryacolum tank in the limit of Keelapondoor....	5,246
Improving road No. 4, between Oodacarraputty and Sauttoor and constructing Bridges and Pavements on do	9,956
Constructing a Platform bridge of 22 Vents across the Kathalumputty river on road No. 4......	3,990
Raising and gravelling road No. 10, from Tencausy via Amboosamoodrum and Calacaud to junction with road No. 4 at Pennagoody and constructing a Bridge, tunnels and under drains on do...	3,170
Small works of irrigation......	4,767
Do. do.	1,398
Do. do.	1,086
Constructing the Palace at Streevullipoottoor into a talook Cutcherry...	1,164
Constructing a Police Cutcherry at Coolasagaraputnum	1,703

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
1,240	1,313	3 miles 7 furlongs of the road have been gravelled. The remainder is postponed till the earth work provided in the estimate sanctioned for 1856-57, is completed.
551	551	Completed 31st October 1855.
62	484	Pavement completed, the road on both sides of it is under execution.
165	165	Completed 20th December 1855.
335	335	Completed 3rd September 1855.
1,197	1,197	Do. 31st December 1855.
46	46	Do. 29th February 1856.
300	300	Half of the work completed.
200	200	Under progress.
690	690	Completed 20th April 1856.
295	295	Do. 25th February 1856.
19,006	33,447	
1,041	4,819	The revetment is nearly completed but the earthwork is under progress. This tank received its full supply of water before the remaining work was finished.
880	9,610	Completed in April 1856.
277	3,990	Do. 18th October 1855.
713	3,074	Completed with the exception of a small portion of gravel work and side under drains. The remaining work is delayed in consequence of certain cart drivers having refused to supply gravel at the original rate which on their representation has been since increased.
581	4,710	Very nearly completed.
319	1,398	Completed.
439	1,042	Very nearly completed.
116	1,060	Completed with the exception of doors and windows.
338	1,326	Completed with the exception of plastering and gate pillars.

Description of Work.	Estimated total cost.
1	2
TINNEVELLY.—(*Continued.*)	Rs.
Constructing a Court House for the Civil and Session Judge of Tinnevelly..	3,886
Constructing a Bridge of one arch across the Aloothacunneer river on road No. 10.....	1,957
Improvement to road No. 12, from Palamcottah to Trichendoor...	2,919
Amount of Supplemental Estimate for do....	1,280
Constructing a Platform bridge of 8 Vents across the Poliem channels road No. 8...	336
Reconstructing two Platform bridges and two tunnels on road No. 9.....	1,360
Emergent Works.	
Removing a portion of the Eastern wall of the Palamcottah fort	818
Sinking 3 wells in the new Lines of the 13th Regiment Native Infantry..	300
Repairing the Principal Sudder Ameen's Court at Tinnevelly...	485
Repairing Flag Staff at the Port of Tuticorin....	72
Repairing portion of road No. 4, between Aussoor Muddum and Oosalemputty....	2,702
Repairing portion of road No. 4, between Soolochanum's bridge and Shady Khan's Choultry	1,695
Supplemental Estimate	230
Raising road and constructing Bridges and Tunnels on road No. 13.	929
Raising and gravelling road and constructing a Bridge and Tunnel on road No. 22......	728
Reconstructing bridge over the Cunnadien channel in the Shariwadery Talook......	171
Constructing a Police Cutcherry at Wattrayeroopoo....	1,587
Total Tinnevelly....	53,935
MADRAS.	
Supplemental Estimates.	
Making certain improvements to the Lying-in-Hospital by adding 2 new Wings........	2,200
Separating the sewerage of Black Town from the Drainage..	780

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
592	3,673	The new Court House has been completed, and the repairs to the old one are delayed pending the receipt of sanction for a Supplemental Estimate which has been lately received.
934	1,917	Completed March 1855.
700	1,636	The delay in this work is owing to complaints made of insufficiency of the rate for gravelling which has been since increased.
168	336	Completed December 1855. In the Report of progress for 1854-55, Rupees 236 are entered as the amount of the estimate for this work by mistake in the Budget of that year.
805	1,345	The Bridge work has been completed and the approaches are now being formed.
633	633	Completed 22nd February 1856.
307	307	Do. 12th do.
485	485	Do. 2nd December 1855.
72	72	The Materials have been collected and the work will be put in hand as soon as possible.
2,504	2,504	Completed with the exception of rolling for a short distance.
1,581	1,581	This has been completed with the exception of 700 yards of gravelling.
36	929	Completed in December 1855.
313	728	This has been completed with the exception of rolling for a length of 240 yards.
164	164	The materials for this bridge have been collected and the work will be commenced upon as soon as the channel becomes dry.
252	1,315	Completed with the exception of tiling compound wall and plastering.
14,280	48,654	
476	476	Completed with the exception of paint work, &c.
133	133	Completed in October 1855. The covering of this drain has been of great benefit to the Public.

Description of Work.	Estimated total cost.
1	2
MADRAS.—(*Continued*)	
Works not included in any Budget.	Rs.
Putting up 11 Punkahs in the Church at Poonamallee......	294
Erecting a Wash House with Masonry Tubs, &c., in the vicinity of the European Barracks in the Fort........	3,790
Erecting a new Slaughter House for the use of Government contractors and other minor Butchers, West of Powder Mills......	5,781
Erecting new Sheds with ridge Ventilators on the Wallajah Berme for the use of the Forge attached to the Arsenal........	8,998
Laying leaden pipes, &c. to the Wash House of the Parcherry	2,150
And European Barracks in the Fort........	2,172
Erecting a new solitary cell in the Camp Equipage Depôt.....	391
Erecting a Skittle Alley in the Barrack yard of the B Troop Horse Artillery Barracks at Saint Thomas' Mount......	512
Forming a sink Fence or Ditch with a Terrace on the border and constructing a masonry retaining Wall and Balastrades, &c., in the South side of the principal building in the Government Park at Guindy.	2,167
Supplemental Estimate......	1,559
Constructing a lattice bridge on screw piles in lieu of the dilapidated bridge leading out of the Saint Thomé Ravelin Gate of the Fort	1,983
Supplemental Estimate........	517
Erecting a 3rd Story over the Surgeon's Quarters at the General Hospital....	2,183
Sinking a Brick well of 4 feet Diameter in the expense magazine for the Guard and Serjeants stationed there	78
Supplemental Estimate........	279
Improving Jeremiah's Road, Vepery......	8,380
Constructing nine new Public Privies and altering four old ones outside of Black Town Walls....	5,000
Constructing a portion of compound wall of the Hindoo Burning Ground on the North of Ice House road......	321
Opening a new road from Mowbray's road to the South Beach road, Mylapore........	10,409
Improving and altering the buildings within the Penitentiary compound, Pareamettoo......	4,700
Do. do. do.	3,460
Opening a new road through the Cooppum Triplicane from Vencatarunga Pillay Street, to the South Beach road	10,963
Constructing a support wall on the East side of South Beach road Triplicane, between the Dewan's House and the Marine Villa.....	2,393
Widening and improving the South Beach road and constructing support walls on both sides from a bridge north of the Ice House, to the Dewan's House......	6,871
Raising and metalling the new road through the village of Comal Easwarer Pettah......	4,939
Constructing that portion of the main sewer which crosses the Esplanade of the Fort, between Umpherson's street and the sea.... .. .	33,140
Rebuilding a Coach House in Mullacundapa Chetty's Garden at the junction of Marshall's road with the Pantheon road....	441

Expenditure during the year.	Total Expenditure	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
239	291	Completed in September 1855.
3,325	5,579	Do. in February 1856.
4,597	4,597	The walls ready for roofing.
3,965	3,965	Walls ready for tiled roofing.
2,467	2,467	In progress.
204	471	Completed in September 1855.
47	541	Do. in July 1855.
181	3,835	Do. do.
1,310	3,299	Do. in October 1855.
1,784	3,743	Do. in November 1855.
250	250	Nearly completed.
710	7,145	Completed 13th July 1855.
807	5,000	Do. 4th October 1855.
107	307	Do. 4th July 1855.
1,045	10,406	Do. 30th July 1855.
1,504	4,504	Do. 22nd May 1855.
3,389	3,389	Do. 12th November 1855.
10,963	10,963	Do. 24th December 1855.
2,393	2,393	Do. do.
6,848	6,848	Do. 17th March 1856.
4,617	4,617	Do. 7th November 1855.
8,621	28,621	Drains completed and the excavated soil not removed.
441	441	Completed 10th September 1855.

Description of Work.	Estimated total cost.
1	2
MADRAS.—(*Continued.*)	Rs.
Reconstructing a Pilliar Pagoda in Comal Easwarer Pettah..	382
Constructing a Balustrade on the West side of the Horticultural Gardens adjoining Saint George's Cathedral road.........	2,800
Purchasing ground for improving and widening Saint Georges' Cathedral road from Mowbray's road to Mount road......	4,817
Rebuilding a Coach House, Stables, compound walls, &c., for the opening of a new road between the Gun Carriage Depôt, and the Eye Infirmary....	4,580
Constructing a Drain across the East of Sydemham's road Pareamettoo joining Vepery High road....	607
Constructing a new road across the Esplanade between the Hospital Bridge and Vepery High road....	1,700
Constructing a support wall on the East side of the South Beach road Mylapore, from the Bridge South of the Ice House to the Masonic Lodge......	1,540
Constructing a support wall on both sides of South Beach road Mylapore. from the Masonic Lodge to the Bridge south of the above building...	2,900
Constructing Public Privies in Chintadrepettah, Comal Easwarer Pettah, Narasingapoorum, &c........	5,525
Constructing a portion of compound wall and making wooden gates with rails to the General Police Office, Royapettah....	964
Emergent Works.	
Erecting a Wash House in the Parcherry Barracks in the Fort......	1,715
Sinking a well of 12 feet diameter and 60 feet deep at the Gun Powder Manufactory.....	1,280
Sinking a well in the compound of the Lying-in-Hospital	704
Erecting two covered Cisterns in the Stable Yard at Guindy........	378
Erecting a Peons' Lodge at the Adyar gate of the Guindy Park......	258
Constructing a number of small Pillars in the Government Garden Guindy Park......	411
Putting up new wooden railing in the Brigade Major's Office in the Fort	22
Erecting a terraced shed at the Saluting Battery on the South Beach for the use of the Men of the European Artillery Veteran Company...	878
Sinking a new well for the use of the Horse Artillery at Saint Thomas' Mount......	1,500
Suspending 29 Punkahs in the European Ward of the General Hospital.	845
Making certain alterations, and additions &c. to the building in the Fort occupied by the Government Lithographic Press, attached to the Chief Engineer's Office in the Fort.....	4,074
Providing granite floors to the several Privies in the Criminal side of Her Majesty's Grand Jail........	345
Sinking a new well in the compound of the Leper Hospital...	309
Constructing a Privy at the South face of the Casemates in the East Lunette of the North Ravelin	104
Sinking a new brick well, &c. at the Monument, Esplanade..	84
Making certain improvements and additions, &c. to the Triplicane Dispensary at Royapettah......	7,130

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
381	381	Completed 31st December 1855.
2,056	2,056	Nearly completed.
3,659	3,659	Do. do.
2,699	2,699	Do. do.
200	200	In progress.
250	250	Do.
500	500	Do.
1,000	1,000	Do.
2,887	2,887	Do.
202	202	Do.
459	1,715	Completed in January 1856.
845	1,280	Do. in February 1856.
704	704	Do. in December 1855.
378	378	Do. in March 1856.
258	258	Nearly completed.
411	411	Completed in March 1856.
22	22	Nearly completed.
878	878	Walls ready for roofing.
1,500	1,500	Completed.
53	831	Do. in September 1855.
2,891	6,089	Completed in August 1855.
392	392	Do. in February 1856.
457	457	Do. in December 1855.
123	123	Do. in October 1855.
93	93	Do. in November 1855.
1,302	1,302	Raising walls in progress.

Description of Work.	Estimated total cost.
1	2
MADRAS.—(*Continued.*)	Rs.
Making certain improvements in the Ground floor, erecting two new buildings for depositing the Seized properties in lieu of those appropriated in the present arrangement for other purposes in the Small Cause Court on the North Beach, and also for constructing a Gallery of communication between the Supreme Court and Small Cause Court Building...	2,746
Improvements to the Serjeant's quarters at the Body Guard Lines	3,651
Erecting a new Slinging shed with apparatus for slinging Horses and supplying Blinds to the Stables of the Sick Lines at the Body Guard Lines......	543
Fixing 2 Sky lights in the ceiling of two rooms in the Government Office	1,225
Putting up 126 Stink traps to the several Cesspools of the Drains generally in the Fort........	826
Constructing a double storied Verandah on the East side of the Town Major's Quarter and making certain alterations and erecting Verandah in continuation on the Eastern side of the Office, &c.... ...	3,785
Raising the roof and floor, &c., of the Parcherry Barracks in the Fort ..	13,851
Making new granite pavement in front of the Coach House at Government House, Madras......	823
Erecting foot baths for the use of the Horses of the Body Guard Lines ..	602
Suspending 4 additional Punkahs in Saint Mathias, Church at Vepery ...	442
Building columns for giving permanent support to the beams, &c. at the Bonding Ware House on the North Beach........	1,273
Making certain improvements for the additional accommodation of the Superintending Engineer's Office in the Fort......	276
Supplying Shelves with flat hook to the Parcherry Barracks in the Fort.	497
Flooring with granite the Clothing Store room in the Fort..	1,101
Constructing a Platform in front of Light House	541
Putting up two Silk Screens in front Verandah of the principal building at Guindy........	314
Making certain additions to the Government Press Office in the Fort ..	2,870
Making certain additions by building a bed and bath rooms over the open terrace of the Garrison Assistant Surgeon's quarters in the Fort, for increasing the accommodation of the same and also for constructing a Sky Light over the terrace of the Draftsman's room of the Quarter Master General's Office	254
Making alterations and improvements to the Lying-in-Hospital.......	1,465 3,004
Construction of five Tannah Stations around Black Town......	4,126
Construction of a Timber platform, a yard opposite Custom House	460
Reforming Elephant Gate road, from the Elephant Gate to D'Mallow's road...	904
Reforming Thieving Bazar road, from Popham's road to North Beach road..	994
Reforming the roadway over the Wallajah bridge....	254
Reforming the Mint gate, Esplanade road.....	513
Reforming the Ennore road....	1,365

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
1,526	1,526	Nearly completed.
1,514	3,651	Completed in November 1855.
28	543	Do. in July 1855.
379	1,225	Do. in August 1855.
264	826	Do. in November 1855.
1,692	3,785	Do. in November 1855.
5,190	13,851	Do. in September 1855.
623	823	Do. in August 1855.
602	602	Do. in February 1856.
442	442	Do. in October 1855.
1,273	1,273	Do. in February 1856.
276	276	Walls raising.
497	497	Completed in October 1855.
1,101	1,101	Nearly completed.
541	541	Completed in January 1856.
314	314	Do. in December 1855.
2,870	2,870	Walls raising. Estimate amounting to Rupees 15,480 has since been sanctioned by Government for this work.
254	254	In progress.
1,465	1,465	Completed.
1,479	1,479	In progress.
1,890	1,890	2 Tannahs completed and all others well advanced.
404	404	Completed in October 1855.
904	904	Do. 26th June 1855.
994	994	Do. 18th July 1855.
254	254	Do. 19th June 1855.
513	513	Do. 2nd July 1855.
1,365	1,365	Do 20th September 1855.

Description of Work.	Estimated total cost.
1	2
MADRAS.—(*Continued.*)	Rs.
Constructing a road between the Mount road and the new Bridge across the Cooum river........	805
Opening channels to the East and West of the Elphinstone bridge, and raising a small bank near Sir H. Montgomery's Park......	950
Supplying Jelly and Gravel to the Body Guard Lines..	302
Making approaches to the Dam road...	174
Revetting the bank of the Cooum river between the Commander-in-Chief's and Saint Andrew's Bridges....	5,290
Reforming Trivattoor road from the limits to Peddoo Naick's Muntapum....	1,400
For making a new Platform and clearing that portion of the Dung hill which lies west and south west of the Madras old Platform........	1,141
Extending the new Platform to the westward........	8,496
Erecting a Privy for families in rear of No. 1 Barracks occupied by the European Artillery Veteran Company at Saint Thomas' Mount......	100
Total Madras....	2,40,066
SECUNDERABAD.	
Works not included in any Budget.	
Improving Staff Serjeants' Quarters of the Native Infantry Regiments, Cavalry, &c........	17,924
Constructing a work shed in the Arsenal	2,818
Do. a Loft for Doolies in do.	2,153
Improving the Ventilation of the old European Infantry Barracks....	9,426
Emergent Works.	
Constructing Hospital with Privies for the European Regiment......	1,11,320
Do. Married Mens' Quarters do.	2,48,976
Constructing Privies and Cook rooms for the European Infantry Barracks........	22,502
Constructing Towers for supporting Lightning Conductors to the Reserve Magazines....	984
Constructing Cemetries for Native Roman Catholic Christians........	1,830
Do. 3 bridges and excavating a channel........	3,960
Paving with granite and repairing walls of the Barracks of the Cavalry Escort at Hyderabad......	594
Improving the ventilation of the Serjeant Major's Quarters of the European Infantry....	233
Improving the ventilation of the Quarter Master Serjeant's Quarters of the European Infantry......	311

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
805	805	Completed 2nd November 1855.
950	950	Do. 15th November 1855.
302	302	Do. 2nd February 1856.
174	174	Do. 13th November 1855.
4,875	4,875	Do. 28th March 1856.
1,332	1,332	Do. 30th April 1856.
1,141	1,141	Do. 23rd June 1856.
1,000	1,000	In progress.
100	100	Completed in May 1855.
1,24,356	1,98,895	
3,450	22,227	Completed 28th May 1855.
890	2,791	Do. on the 16th July 1856.
580	2,144	Do. do. do.
120	9,026	Do. 28th May 1855.
46,339	46,339	The walls and pillars of lower story almost completed, stair cases under construction.
83,420	83,420	4 Ranges under progress and nearly completed.
17,791	17,791	Cook rooms completed and Privies under execution. These works are a portion of the auxiliary works to the new European Barracks at Secunderabad and included in the Budget of 1856-57 at an estimated cost of Rupees 6,81,154.
993	993	Completed on the 21st December 1855.
1,804	1,804	Do. 30th September 1855.
3,211	3,211	2 Bridges completed and the 3rd awaiting a reference to Madras.
592	592	Completed on the 20th October 1855.
268	268	Do. 16th November 1855.
307	307	Do. 22nd September 1855.

Description of Work.	Estimated total cost.
1	2
SECUNDERABAD.—(*Continued.*)	Rs.
Constructing a detached building for the treatment of severe cases of the 11th Regiment Native Infantry....	2,052
Constructing a Hospital for the Camp followers of a Regiment of Light Cavalry.... .. .. Do. Horse Field Battery...... . ..	5,025
Constructing compound wall to the Protestant Burial Ground..	3,205
Supplemental Estimate......	470
Constructing a slinging shed for a Regiment of Light Cavalry........	640
Constructing a slinging shed, for a Regiment of Horse Artillery......	640
Do. Horse Field Battery.....	512
Do. a Privy for the Infantry Escort, Hyderabad....	272
Painting Doors and Windows of the Saint John's Church..	320
Painting Doors of the Arsenal...	100
Constructing Temporary Urinary sheds.......	100
Enclosing a portion of the Verandahs of the Barracks of the 34th and 50th Regiments Native Infantry........	900
Improving the Ventilation of the European Artillery Hospital	300
Constructing a Pew in Saint John's Church....	50
Total Secunderabad ...	4,37,617
SAUGOR DIVISION.	
Works not included in any Budget.	
Completing Lines for a Regiment of Cavalry......	29,253
Constructing end Buttresses and Platforms to Cavalry Place of Arms. ..	966
Draining the site of the Cavalry Lines	686
Improvements to the Infantry Staff Serjeants' quarters.....	2,294
Improvements to the Arsenal buildings at Saugor....	9,925
Building Tar Cistern in the Arsenal	313
MHOW.	
Additions and Improvements to Staff Serjeant's quarters at Mhow.......	2,142
Converting the Lock Hospital into an Engineer yard....	1,202
Putting up Beams for slinging Horses in Cavalry sick Lines	177
Do. do. Artillery Lines......	177
JUBBULPORE.	
Building a new Engineer's work Shop........	615
KAMPTEE.	
2 Privies to the School Rooms of the Artillery at Kamptee..	250
Adding a flat terraced Verandah to the Pay Office at Kamptee.......	388
Putting the Punkahs in the Church at Kamptee.....	754

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks.
3	4	5
Rs.	Rs.	
2,041	2,041	Completed 29th December 1855. This work is included in the Budget of 1856-57 at an estimated cost of Rupees 2,190, but undertaken on emergency.
4,996	4 996	Completed 15th April 1856. This work is included in the Budget of 1856-57, but undertaken on emergency.
3,410	3,410	Completed with the exception of the Gates, &c. This work is included in the Budget of 1856-57, but undertaken on emergency.
591	591	Completed 18th April 1856.
582	582	Do. do.
409	409	Do. do.
272	272	Do. 7th July 1855.
302	302	Do. 30th November 1855.
97	97	Do. 26th February 1856.
96	96	Do. 12th April 1856.
838	838	Completed with the exception of varnishing.
220	220	Chuppers supplied and masonry work under execution.
41	41	Nearly completed.
1,73,660	2,04,808	
5,583	28,312	Completed 28th July 1855.
215	846	Do. do.
1,055	1,055	Do. 2d August 1855.
2,789	2,789	Do. 25th October 1855.
7,477	7,477	Do. 25th March 1856.
346	346	Do. 6th February 1856.
2,578	2,578	Do. 2nd August 1855.
1,227	1,227	Do. 15th June 1855.
115	115	Do. 20th August 1855.
113	113	Do. do.
132	132	About two-thirds of the superstructure finished.
252	252	Completed 12th November 1855.
363	363	Do. 27th November 1855.
754	754	Do. 31st January 1856.

Description of Work.	Estimated total cost.
1	2
SAUGOR DIVISION.—(*Continued.*)	Rs.
Renewing the stone floor, &c. of the Right and Left Range of the Foot Artillery at Kamptee..........	2,518
Renewing roof, &c. of the Guard room of the do. do...	1,115
Do. of the Cook rooms Nos. 1 and 2 of the do. do...	1,392
Do. do and repairing the stone floor of the Privy of do...	534
Constructing a Lightning Conductor for the Magazine of the 1st Infantry Lines, now occupied by the 17th Native Infantry........	260
Emergent Works.	
Building a double Cook room for Artillery Staff Serjeant's Quarters....	204
Building a Timber shed in the Engineer's work yard........	1,105
Building a Gram shed for Cavalry......	640
Total Saugor....	56,910
JAULNAH.	
Emergent Works.	
Erecting a Guard room for Solitary Cells......	721
Fixing Punkahs in the Church....	115
Raising the walls and improving the left Native Infantry Lines Hospital.	1,100
Improving the Artillery Sick Stable....	196
Building an expense Magazine for Cavalry....	800
Building a wash house for the Artillery......	417
Converting the Artillery gram godown into a Magazine.......	240
Erecting a wash house and privy for the women of the Artillery	284
Fitting stalls for slinging horses in Artillery and Cavalry, sick stables..	448
Putting 2 additional seats in the Church	35
Making kneeling stools for the Church, and putting steps to doors at east end........	103
Giving glazed windows to the Commissariat Office......	46
Total Jaulnah....	4,505
Total additional works....	32,88,810

CENTRAL OFFICE OF P. W.
FORT SAINT GEORGE,
11*th November*, 1856.

Expenditure during the year.	Total Expenditure.	Date of completion or state of progress and Explanatory Remarks
3	4	5
Rs.	Rs.	
2,692	2,692	Completed 24th August 1855.
1,169	1,169	Do. 21st September 1855.
1,436	1,436	Do. 24th August 1855.
534	534	Do. 21st September 1855.
260	260	Do. 30th April 1856.
199	199	Completed 15th January 1856.
751	751	Do. 16th February 1856. do. do.
639	639	Do. 28th April 1856. do. do.
		These works are included in the Budget of 1856-57, but undertaken on emergency.
30,679	54,039	
21	267	Completed 18th May 1855. The saving on this work has been caused by using the materials from the dismantled Buildings.
56	115	Completed 9th June 1855.
381	381	Do. 7th July 1855. The saving on this work has been caused by raising the roof without dismantling it as allowed for in the Estimate and by using the materials from the dismantled buildings.
103	103	Completed 5th August 1855.
127	287	Do. 20th August 1855. The saving on this work has been caused by using the old racks from the store room and by using the materials from the dismantled buildings
221	221	Completed 30th August 1855. The saving on this work has been caused by using the unserviceable materials from the dismantled buildings.
153	153	Completed 30th August 1855.
246	246	Do. 25th October 1855.
411	411	Do. 20th December 1855.
35	35	Do. 15th March 1856.
103	103	Do. 19th December 1855.
46	46	Do. 15th August 1855.
1,903	2,368	
11,29,806	25,88,837	

(Signed) C. E. FABER, Colonel.
Chief Engineer.

ABSTRACT.

	Description of Work.	Estimated total cost.	Expenditure during the year.	Total Expenditure.
	1	2	3	4
	Abstract of No. 2. Statement.			
		Rs.	Rs.	Rs.
1	Ganjam..	2,58,332	68,566	1,76,569
2	Vizagapatam.....	1,53,303	59,838	1,12,660
3	Rajahmundry..	1,70,287	53,189	1,27,063
4	Masulipatam	11,11,849	2,57,643	7,85,392
5	Guntoor..	6,85,334	1,26,939	5,81,604
6	Nellore..	2,61,572	43,087	2,35,880
7	Cuddapah...	39,000	22,518	27,402
8	Bellary...	1,94,999	1,21,168	1,24,480
9	Kurnool..	1,25,426	57,738	57,738
10	Canara..	1,87,944	94,571	1,36,115
11	Chingleput...	4,15,016	35,262	54,119
12	North Arcot..	7,76,647	2,48,093	3,24,832
13	South Arcot..	1,85,524	88,407	94,495
14	Salem...	17,274	8,780	8,811
15	Trichinopoly..	1,19,330	60,432	62,207
16	Tanjore..	2,43,416	2,13,264	2,13,264
17	Coimbatore..	1,12,097	43,948	72,665
18	Malabar...	52,800	27,152	34,369
19	Madura	38,577	15,797	15,797
20	Tinnevelly...	91,601	54,454	75,937
21	Upper Godavery..	1,06,717	1,30,396	1,30,396
22	Madras..	38,176	"	"
	Total District Works....	53,85,221	18,31,242	34,51,795
	Do. Military Works ..	12,69,579	5,32,017	11,43,923
	Do. Trunk Road Works.	8,93,794	2,20,937	4,30,625
		75,48,594	25,84,196	50,26,343
	Additional works not included in any Budget..	32,88,810	11,29,806	25,88,837
	Grand Total..	108,37,404	37,14,002	76,15,180

Central Office of P. W.
Fort Saint George,
11*th November* 1856.

(Signed) C. E. FABER, Colonel,
Chief Engineer.

SYNOPSIS OF EXPENDITURE ON PUBLIC WORKS
THE DIFFERENT BRANCHES OF

Districts.		Public.			
		Roads and Communications.	General.	Political.	Total.
		Rs.	Rs.	Rs.	Rs.
Ganjam....	New works......	1,19,503	0	0	1,19,503
	Repairs...	8,663	0	0	8,663
Vizagapatam....... ..	New works......	73,069	0	0	73,069
	Repairs.	0	0	0	0
Rajahmundry	New works.......	15,755	7,854	0	23,609
	Repairs..........	18,274	423	0	18,697
Masulipatam.	New works	1,20,118	0	0	1,20,118
	Repairs.	4,558	347	0	4.905
Guntoor..........	New works	23,686	0	0	23,686
	Repairs	623	156	0	779
Nellore	New works......	1,30,946	482	0	1,31.428
	Repairs.........	653	621	0	1,274
Cuddapah..........	New Works	1,12,506	0	0	1,12,506
	Repairs..	3,100	149	0	3,249
Bellary	New works......	1,32,643	622	0	1,33,265
	Repairs	39,715	355	0	40,070
Kurnool......... ...	New works.......	66,403	5,419	0	71,822
	Repairs.	7,731	0	0	7,731
Canara............	New works	93.676	18	0	93,694
	Repairs.	32,787	7,535	0	40,322
Chingleput.........	New works.......	1.54,416	0	0	1,51,446
	Repairs.	74,277	0	0	74,277
North Arcot...... ..	New works	95,711	0	0	95,711
	Repairs..........	58,305	333	0	58 638
South Arcot.	New works	1,38,685	0	0	1,38,685
	Repairs..........	16,614	1,503	0	18,117
Salem........	New works	10,415	0	0	10,415
	Repairs..........	4,683	827	0	5,510
Trichinopoly.	New works.....,	26,597	315	0	26,912
	Repairs..	20,347	167	0	20,514
Tanjore...	New works	1,69,446	313	0	1,69,759
	Repairs	31.722	2,277	0	33 999
Coimbatore........	New works	81,902	3,107	0	85,009
	Repairs....	23,634	4,109	0	27,743
Malabar	New works	39,971	586	0	40,557
	Repairs.........	7,501	771	0	8,272
Madura............	New works	30,325	0	0	30,325
	Repairs	7,439	850	0	8,289
Tinnevelly....	New works...	53,388	0	0	53,388
	Repairs..........	4,089	569	0	4,658
Upper Godavery.....	New works	1,30,396	0	0	1,30,396
	Repairs..........	0	0	0	0

IN THE MADRAS PRESIDENCY CLASSIFIED UNDER THE PUBLIC SERVICE FOR 1855-56.

Revenue General.	Revenue Irrigation.	Judicial.	Ecclesiastical.	Educational.	Marine.	Military.	Total.	Total of both new works and Repairs.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
0	6,583	0	0	0	0	0	1,26,086	1,97,608
2,869	55,906	0	0	0	113	3,971	71,522	
1,195	0	5,381	0	0	0	0	79,645	90,247
1,080	7,840	0	179	0	0	1,503	10,602	
15	3,34,175	208	0	0	25,457	0	3,83,464	5,87,737
239	1,84,883	69	0	0	385	0	2,04,273	
0	2,51,523	118	0	0	0	0	3,71,759	4,65,943
567	81,603	152	0	0	0	6,957	94,184	
0	1,26,238	1,537	0	0	0	0	1,51,461	2,00,327
0	48,087	0	0	0	0	0	48,866	
1,604	22,429	4,103	0	0	0	0	1,59,564	2,21,908
0	60,849	183	0	0	0	38	62,314	
0	8,049	0	0	0	0	0	1,20,555	1,47,403
649	22,466	212	0	0	0	272	26,848	
1,678	14,737	5,250	0	0	0	33,350	1,88,280	2,84,726
44	56,098	234	0	0	0	0	96,446	
2,527	2,645	0	0	0	0	0	76,994	86,897
21	2,151	0	0	0	0	0	9,903	
947	1,904	13,756	0	0	4,129	0	1,14,430	1,60,627
2,849	0	570	0	0	2,456	0	46,[illegible]	
0	35,716	205	0	0	0	10,430	2,00,797	3,16,651
470	41,084	23	0	0	0	0	1,15,854	
886	2,23,080	284	0	0	0	18	3,19,979	4,18,038
817	38,288	816	0	0	0	0	98,059	
0	25,68[illegible]	0	0	0	11,455	0	1,75,825	2,80,929
659	85,702	626	0	0	0	0	1,05,104	
0	12,136	350	0	0	0	2,784	25,715	77,193
1,195	44,474	299	0	0	0	0	51,478	
0	61,349	0	0	0	0	0	88,261	2,43,757
265	1,32,931	32	41	0	0	1,713	1,55,496	
2,096	1,54,859	7,293	0	0	1,655	0	3,35,662	5,54,728
1,620	1,80,281	330	0	0	2,836	0	2,19,066	
4,287	6,930	1,952	0	0	0	1,20,077	2,18,255	2,67,253
332	20,20[illegible]	716	0	0	0	0	48,998	
300	24,938	1,908	16	0	2,921	4,418	75,057	86,061
791	1,793	148	0	0	0	0	11,004	
2,981	1,497	0	0	0	0	0	34,803	80,942
626	37,133	81	0	0	0	10	46,139	
879	11,232	2,223	3,977	0	72	940	72,711	1,48,280
972	69,577	0	0	0	0	362	75,569	
0	0	0	0	0	0	0	1,30,396	1,30,396
0	0	0	0	0	0	0	0	

SYONOPSIS OF EXPENDITURE ON PUBLIC WORKS THE DIFFERENT BRANCHES OF THE

Districts.		Public.			
		Roads and Communications.	General.	Political.	Total.
		Rs.	Rs.	Rs.	Rs.
Madras.	New works..	41,838	1,36,151	5,414	1,82,403
	Repairs..	30,845	32,723	0	63,568
Mysore	New works.......	0	0	0	0
	Repairs..........	0	0	0	0
Hyderabad	New works..	3,211	0	0	3,211
	Repairs...........	0	0	0	0
Saugor............	New works..	0	0	0	0
	Repairs......... ..	0	0	0	0
Jaulnah.......	New works	0	0	0	0
	Repairs..........	0	0	0	0
Total of New works....		18,64,666	1,53,867	5,414	20,23,947
Total of Repairs ...		3,95,560	53,715	0	4,49,275
Total of both New works and Repairs .. .		22,60,226	2,07,582	5,414	24,73,222
Establishment for the whole Department.		....	....	....	....

IN THE MADRAS PRESIDENCY CLASSIFIED UNDER PUBLIC SERVICE FOR 1855-56.—*Concluded.*

Revenue General.	Revenue Irrigation.	Judicial.	Ecclesiastical.	Educational.	Marine.	Military.	Total.	Total of both new works and Repairs.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
3,414	0	20,352	681	0	404	63,187	2,70,441	4,63,391
1,423	378	4,989	4,516	0	2.045	1,16,092	1,92,950	
0	0	0	0	0	0	5,060	5,060	26,579
0	0	0	0	0	0	21,519	21,519	
0	0	0	5,557	0	0	3,79,919	3,88,687	3,91,235
0	0	0	0	0	0	2,548	2,548	
0	0	0	1,656	0	0	30,256	31,912	43,778
0	0	0	0	0	0	11,866	11,866	
0	0	0	194	0	0	14,361	14,555	15,607
0	0	0	30	0	0	1,022	1,052	
22,809	13,25,705	64,920	12,080	0	46,093	6,64,800	41,60,354	
16,988	11,71,731	9,420	4,765	0	7,835	1,67,873	18,27,887	
39,797	24,97,436	74,340	16,845	0	53,928	8,32,673	59,88,241	59,88,241
....	....	....	.....	...	....	....	....	7,68,419
						Grand Total. ...		67,56 660

Tabular view of Expenditure on Public Works in the Madras Presidency during 1855-56 *in more detailed classification of objects.*

"PUBLIC" ROADS AND COMMUNICATIONS.

Districts.	Trunk or Main Roads.	Secondary Roads.	Ferries and Sundry Bridges.	Dâk Bungalows, &c.	Navigable Canals and Rivers.	Repairs.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ganjam.... ..	60,937	68,566	0	0	0	8,663	1,28,166
Vizagapatam. ..	11,936	38,535	22,598	0	0	0	73,069
Rajahmundry..	0	4,896	1,910	0	8,949	18,274	34,029
Masulipatam....	0	20,855	94,826	0	4,437	4,558	1,24,676
Guntoor.... ..	18,252	2,337	3,097	0	0	623	24,309
Nellore.	95,414	15,866	4,379	134	15,153	653	1,31,599
Cuddapah..	29,076	71,407	9,023	0	0	3,100	1,15,606
Bellary...... ..	15,239	93,856	18,028	5,520	0	39,715	1,72,358
Kurnool.	0	54,043	12,360	0	0	7,731	74,134
Canara.	5,881	62,983	22,482	2,289	41	32,787	1,26,463
Chingleput	0	24,431	9,440	0	1,20,575	74,277	2,28,723
North Arcot....	38,235	36,347	20,879	250	0	68,305	1,54,016
South Arcot.. ..	13,642	94,199	24,726	0	6,118	16,614	1,55,299
Salem.	0	7,055	2,540	850	0	4,683	15,128
Trichinopoly.....	10,985	13,612	2,000	0	0	20,347	46,944
Tanjore...... .	1,308	84,120	59,563	552	23,903	31,722	2,01,168
Coimbatore ...	3,329	69,478	8,036	1,059	0	23,634	1,05,536
Malabar........	5,794	27,590	5,890	697	0	7,501	47,472
Madura..	0	24,181	6,144	0	0	7,439	37,764
Tinnevelly.	0	30,915	22,173	0	0	4,089	57,477
Upper Godavery.	0	0	0	0	1,30,396	0	1,30,396
Madras..	0	21,519	20,319	0	0	30,845	72,683
Mysore........	0	0	0	0	0	0	0
Hyderabad.....	0	0	3,211	0	0	0	3,211
Saugor........	0	0	0	0	0	0	0
Jaulnah..	0	0	0	0	0	0	0
Total....	30,00,28	8,69,791	3,73,924	11,351	3,09,572	3,95,560	22,60,226

" PUBLIC"—GENERAL.

Districts.	Post Offices.	Hospitals and Dispensaries.	City Improvements.	Sea Defences.	Miscellaneous.	Repairs.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ganjam	0	0	0	0	0	0	0
Vizagapatam	0	0	0	0	0	0	0
Rajahmundry	0	2,930	0	2,540	2,384	423	8,277
Masulipatam	0	0	0	0	0	347	347
Guntoor	0	0	0	0	0	156	156
Nellore	167	0	0	0	315	621	1,103
Cuddapah	0	0	0	0	0	149	149
Bellary	0	0	0	0	622	355	977
Kurnool	0	395	4,628	0	396	0	5,419
Canara	4	0	0	0	14	7,535	7,553
Chingleput	0	0	0	0	0	0	0
North Arcot	0	0	0	0	0	333	333
South Arcot	0	0	0	0	0	1,503	1,503
Salem	0	0	0	0	0	827	827
Trichinopoly	0	0	0	0	315	167	482
Tanjore	0	0	0	0	313	2,277	2,590
Coimbatore	0	0	0	0	3,107	4,109	7,216
Malabar	0	79	0	0	507	771	1,357
Madura	0	0	0	0	0	850	850
Tinnevelly	0	0	0	0	0	569	569
Madras	0	15,927	63,434	47,877	7,913	32,723	1,67,874
Mysore	0	0	0	0	0	0	0
Hyderabad	0	0	0	0	0	0	0
Saugor	0	0	0	0	0	0	0
Jaulnah	0	0	0	0	0	0	0
Total	171	19,331	68,062	50,417	15,886	53,716	2,07,682

"PUBLIC"—POLITICAL.

Districts.	Government Houses and Offices.	Miscellaneous.	Repairs.	Total.
	Rs.	Rs.	Rs.	Rs.
Ganjam....	0	0	0	0
Vizagapatam..	0	0	0	0
Rajahmundry..	0	0	0	0
Masulipatam..	0	0	0	0
Guntoor....	0	0	0	0
Nellore..	0	0	0	0
Cuddapah..	0	0	0	0
Bellary..	0	0	0	0
Kurnool..	0	0	0	0
Canara..	0	0	0	0
Chingleput...	0	0	0	0
North Arcot..	0	0	0	0
South Arcot	0	0	0	0
Salem	0	0	0	0
Trichinopoly..	0	0	0	0
Tanjore..	0	0	0	0
Coimbatore..	0	0	0	0
Malabar..	0	0	0	0
Madura....	0	0	0	0
Tinnevelly.... .. .	0	0	0	0
Madras*...	4,367	1,047	0	5,414
Mysore....	0	0	0	0
Hyderabad..	0	0	0	0
Saugor....	0	0	0	0
Jaulnah....	0	0	0	0
Total....	4,367	1,047	0	5,414

" REVENUE GENERAL."

Districts.	Custom and Toll Houses.	Salt and Opium.	Other Revenue Buildings.	Repairs.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.
Ganjam...	0	0	0	2,869	2,869
Vizagapatam..	1,195	0	0	1,080	2,275
Rajahmundry...	15	0	0	239	254
Masulipatam..	0	0	0	567	567
Guntoor....	0	0	0	0	0
Nellore..	0	514	1,090	0	1,604
Cuddapah....	0	0	0	649	649
Bellary....	0	0	1,678	44	1,722
Kurnool..	0	0	2,527	21	2,548
Canara..	487	214	246	2,849	3,796
Chingleput...	0	0	0	470	470
North Arcot..	0	0	886	317	1,203
South Arcot..	0	0	0	659	659
Salem	0	0	0	1,195	1,195
Trichinopoly.	0	0	0	265	265
Tanjore	2,096	0	0	1,620	3,716
Coimbatore...	0	0	4,287	332	4,619
Malabar...	0	0	300	791	1,091
Madura..	0	335	2,646	626	3,607
Tinnevelly...	0	0	879	972	1,851
Madras..	1,273	2,141	0	1,423	4,837
Mysore...	0	0	0	0	0
Hyderabad..	0	0	0	0	0
Saugor..	0	0	0	0	0
Jaulnah..	0	0	0	0	0
Total....	5,066	3,204	14,539	16,988	39,797

"REVENUE IRRIGATION."

Districts.	Constructions.	Repairs.	Total.
	Rs.	Rs.	Rs.
Ganjam....	6,583	55,906	62,489
Vizagapatam..	0	7,840	7,840
Rajahmundry..	3,34,175	1,84,883	5,19,058
Masulipatam..	2,51,523	81,603	3,33,126
Guntoor...	1,26,238	48,087	1,74,325
Nellore..	22,429	60,849	83,278
Cuddapah...	8,049	22,466	30,515
Bellary..	14,737	56,098	70,835
Kurnool..	2,645	2,151	4,796
Canara..	1,904	0	1,904
Chingleput... ..	35,716	41,084	76,800
North Arcot...	2,23,080	38,288	2,61,368
South Arcot..	25,685	85,702	1,11,387
Salem..	12,136	44,474	56,610
Trichinopoly..	61,349	1,32,931	1,94,280
Tanjore..	1,54,859	1,80,281	3,35,140
Coimbatore....	6,930	20,207	27,137
Malabar..	24,938	1,793	26,731
Madura...	1,497	37,133	38,630
Tinnevelly..	11,232	69,577	80,809
Madras..	0	378	378
Mysore....	0	0	0
Hyderabad ..	0	0	0
Saugor..	0	0	0
Jaulnah....	0	0	0
Total....	13,25,705	11,71,731	24,97,436

"JUDICIAL."

Districts.	Police and Goals.	Court Houses, &c.	Repairs.	Total.
	Rs.	Rs.	Rs.	Rs.
Ganjam	0	0	0	0
Vizagapatam	5,381	0	0	5,381
Rajahmundry	158	50	69	277
Masulipatam	0	118	152	270
Guntoor	0	1,537	0	1,537
Nellore	2,307	1,796	183	4,286
Cuddapah	0	0	212	212
Bellary	0	5,250	234	5,484
Kurnool	0	0	0	0
Canara	7,976	5,780	570	14,326
Chingleput	205	0	23	228
North Arcot	284	0	816	1,100
South Arcot	0	0	626	626
Salem	0	350	299	649
Trichinopoly	0	0	32	32
Tanjore	0	7,293	330	7,623
Coimbatore	0	1,952	716	2,668
Malabar	0	1,908	148	2,056
Madura	0	0	81	81
Tinnevelly	0	2,223	0	2,223
Madras	18,826	1,526	4,929	25,281
Mysore	0	0	0	0
Hyderabad	0	0	0	0
Saugor	0	0	0	0
Jaulnah	0	0	0	0
Total..	35,137	29,783	9,420	74,340

"ECCLESIASTICAL."

Districts.	Churches.	Burying Grounds.	Repairs.	Total.
	Rs.	Rs.	Rs.	Rs.
Ganjam	0	0	0	0
Vizagapatam	0	0	179	179
Rajahmundry	0	0	0	0
Masulipatam	0	0	0	0
Guntoor	0	0	0	0
Nellore	0	0	0	0
Cuddapah	0	0	0	0
Bellary	0	0	0	0
Kurnool	0	0	0	0
Canara	0	0	0	0
Chingleput	0	0	0	0
North Arcot	0	0	0	0
South Arcot	0	0	0	0
Salem	0	0	0	0
Trichinopoly	0	0	41	41
Tanjore	0	0	0	0
Coimbatore	0	0	0	0
Malabar	0	15	0	15
Madura	0	0	0	0
Tinnevelly	3,977	0	0	3,977
Madras	681	0	4,515	5,196
Mysore	0	0	0	0
Hyderabad	0	5,557	0	5,557
Saugor	1,656	0	0	1,656
Jaulnah	194	0	30	224
Total	6,508	5,572	4,765	16,845

"MARINE."

Districts.	Constructions.	Repairs.	Total.
	Rs.	Rs.	Rs.
Ganjam	0	113	113
Vizagapatam	0	0	0
Rajahmundry	25,457	385	25,842
Masulipatam	0	0	0
Guntoor	0	0	0
Nellore	0	0	0
Cuddapah	0	0	0
Bellary	0	0	0
Kurnool	0	0	0
Canara	4,129	2,456	6,585
Chingleput	0	0	0
North Arcot	0	0	0
South Arcot	11,455	0	11,455
Salem	0	0	0
Trichinopoly	0	0	0
Tanjore	1,655	2,836	4,491
Coimbatore	0	0	0
Malabar	2,921	0	2,921
Madura	0	0	0
Tinnevelly	72	0	72
Madras	404	2,045	2,449
Mysore	0	0	0
Hyderabad	0	0	0
Saugor	0	0	0
Jaulnah	0	0	0
Total	46,093	7,835	53,928

"MILITARY."

Districts.	Defensive works and ordnance Buildings.	Accommoda-tion for Troops.	Stud and Commissariat Buildings.	Contonment Roads and clearance.	Miscellaneous.	Repairs.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ganjam..	0	0	0	0	0	3,971	3,971
Vizagapatam....	0	0	0	0	0	1,503	1,503
Rajahmundry ..	0	0	0	0	0	0	0
Masulipatam.....	0	0	0	0	0	6,957	6,957
Guntoor.	0	0	0	0	0	0	0
Nellore..	0	0	0	0	0	38	38
Cuddapah..	0	0	0	0	0	272	272
Bellary........	2,064	31,286	0	0	0	0	33,350
Kurnool........	0	0	0	0	0	0	0
Canara	0	0	0	0	0	0	0
Chingleput.. ...	0	0	0	0	10,430	0	10,430
North Arcot....	0	0	0	0	18	0	18
South Arcot.. ..	0	0	0	0	0	0	0
Salem.	2,259	0	0	0	525	0	2,784
Trichinopoly ...	0	0	0	0	0	1,713	1,713
Tanjore.	0	0	0	0	0	0	0
Coimbatore.. .	0	1,20,077	0	0	0	0	1,20,077
Malabar........	0	2,386	0	0	2,032	0	4,418
Madura........	0	0	0	0	0	10	10
Tinnevelly......	0	0	0	0	940	362	1,302
Madras.........	3,965	49,898	1,101	0	8,223	1,16,092	1,79,279
Mysore...	0	3,880	1,180	0	0	21,519	26,579
Hyderabad.....	987	3,66,298	0	0	12,634	2,548	3,82,467
Saugor........	8,921	16,142	0	0	5,193	11,866	42,122
Jaulnah........	0	10,429	88	0	3,844	1,022	15,383
Total....	18,196	6,00,396	2,369	0	43,839	1,67,873	8,32,673

ABSTRACT OF CLASSIFIED EXPENDITURE FROM THE FOREGOING TABLES.

	Rupees.	Rupees.	Rupees.
"PUBLIC."			
Roads and Communications.			
Trunk and Main Roads.............	3,00,028		
Secondary Roads.................	8,69,791		
Ferries and Sundry Bridges..........	3,73,924		
Dâk Bungalows.....................	11,351		
Navigable Canals and Repairs........	3,09,572		
Repairs.........................	3,95,560		
	———	22,60,226	
"GENERAL."			
Post Office.......................	171		
Hospitals, &c......................	19,331		
City Improvements................	68,062		
Sea Defences......................	50,417		
Miscellaneous.....................	15,886		
Repairs..........................	53,715		
	———	2,07,582	
"POLITICAL."			
Government Houses and Offices......	4,367		
Miscellaneous....................	1,047		
Repairs..........................	„		
	———	5,414	
"JUDICIAL."			
Police and Gaols..................	35,137		
Court Houses.....................	29,783		
Repairs..........................	9,420		
	———	74,340	
"ECCLESIASTICAL."			
Churches........................	6,508		
Burial Grounds..................	5,572		
Repairs.........................	4,765		
	———	16,845	
"EDUCATIONAL."			
Schools and Colleges..............	„		
Repairs..........................	„		

ABSTRACT OF CLASSIFIED EXPENDITURE FROM THE FOREGOING TABLES—*Concluded.*

	Rupees.	Rupees.	Rupees.
"REVENUE GENERAL."			
Custom and Toll Houses............	5,066		
Salt and Opium....................	3,204		
Other Revenue Buildings...........	14,539		
Repairs...........................	16,988		
		39,797	
REVENUE IRRIGATION."			
Canals, Tanks and Embankments.....	13,25,705		
Repairs...........................	11,71,731		
		24,97,436	
"MARINE."			
Marine Works......................	46,093		
Repairs...........................	7,835		
		53,928	
Total Civil Works.................	....	....	51,55,568
"MILITARY."			
Defensive works and Ordnance Buildings..........................	18,196		
Accommodation for Troops..........	6,00,396		
Commissariat Buildings............	2,369		
Cantonment formation, &c..........	,,		
Miscellaneous.....................	43,839		
Repairs...........................	1,67,873		
		8,32,673	
Total Military works..............	....	....	8,32,673
Total of both Civil and Military works	....	....	59,88,241
Establishment for the whole Department	....	....	7,68,419
Grand Total Expenditure...........	....	....	67,56,660

CENTRAL OFFICE OF P. W.
FORT SAINT GEORGE,
11*th November*, 1856.

(Signed) C. E. FABER, Colonel,
Chief Engineer.

STATISTICS OF EXPENDITURE ON THE GREAT WORKS FINISHED

NAMES OF WORKS.	District.	Estimate.
Works completed.		
IRRIGATION WORKS.		
Godavery Annicut....................	Rajahmundry	9,58,922
Annicut across the Vaddavaur Channel..	Tanjore......	1,35,236
Coleroon Annicut, at Seerungum......	„	98,383
Annicut across the Vellaur.............	„	82,260
Dam, &c. across the Cauvery..........	„	72,738
Lower Coleroon Annicut (extension). ..	„	70,000
ROADS, BRIDGES AND OTHER COMMUNICATIONS.		
Bridge across the River Cauvery.......	Trichinopoly.	99,140
Road through Davamany Ghaut.........	Canara......	77,088
Works in Progress.		
IRRIGATION WORKS.		
Subsidiary works to Godavery Annicut.... — Left bank.............	Rajahmundry and Masulipatam........	5,43,659
Delta works........	Do.	7,92,669
Right bank...........	Do.	7,95,173
		21,31,501
Kistnah Annicut.....................	Masulipatam	7,66,541
Subsidiary works to the above.........	and Guntoor...	7,04,176
		14,70,717
Palaur Annicut project...............	North Arcot and Chingleput........	8,66,144
Annicut across the Pennaur River.....	Nellore......	95,050
Cheyaur Annicut project..............	North Arcot..	44,144
CANALS.		
(Excavating Eastern Coast Canal from the Palaur to the Adyaur River).....	Chingleput..	2,21,872

AND STILL IN PROGRESS IN THE MADRAS PRESIDENCY.

Year of commencement.	Amount expended in previous years.	Amount expended in 1855-56.	Total expenditure.	REMARKS.
1847	9,44,335	,,	9,44,335	
1835-36	1,29,046	,,	1,29,046	
1835-36	83,401	,,	83,401	
1845-46	94,036	,,	94,036	
1844-45	56,714	,,	56,714	
1854-55	70,000	,,	70,000	
1846-47	98,639	,,	98,639	
1848-49	77,724	,,	77,724	
1848	12,84,579	4,05,591	16,90,170	In progress.
1852-53	9,65,800	2,63,676	12,29,476	Annicut work completed in March 1856, but the Subsidiary works are in progress.
1854-55	51,999	1,89,912	2,41,911	In progress.
1852-53	72,353	17,141	89,494	Completed in August 1555.
1851-52	31,577	8,228	39,805	Annicut work completed and the remaining work in progress.
1855-56	,,	98,026	98,026	About 15 miles of Canal completed and 15 more in various stages of progress, the amount of earth work removed during the season being 12,06,041 cubic yards, one Masonry bridge built up to the springing of the arch and the wood of lattice bridge prepared; materials collected, and ferry-boats built.

STATISTICS OF EXPENDITURE ON THE GREAT WORKS FINISHED

NAMES OF WORKS.	District.	Estimate.
Canals to connect Porto Novo to Cuddalore.	South Arcot..	55,000
Roads, Bridges and other communications.		
Road constructed for affording employment to the poor people suffering from famine with masonry works thereon.	Bellary and Kurnool.........	15,44,641
Bridge over the Annicut across the Kistnah River at Bezôrah..............	Masulipatam..	1,99,931
Bridge across the Coleroon between Negapatam and Cuddalore...........	Tanjore.	1,30,000
Road through Munzerabad Ghaut......	Canara.	83,279
Bridge across the lower Coleroon on the road from Combaconum to Madras....	Tanjore.	80,000
Bridge across the Palaur at Vellore.....	North Arcot..	72,673
Bridge across the Ponneyaur River between Cuddalore and Pondicherry....	South Arcot..	50,000
Improvements to the Coringa and Cocanada Harbours....................	Rajahmundry.	1,47,478
Trunk Road No. 1, from Madras to the Mysore frontier near Ossoor.........	Chingleput, North Arcot and Salem.	6,96,900
Trunk Road No. 2, from Frazerpett to Mangalore.........................	Coorg and Canara.	64,757
Trunk Road No. 3, from Munzerabad to Buntwal.........................	Canara.	42,372

AND STILL IN PROGRESS IN THE MADRAS PRESIDENCY.—*Continued.*

Year of commencement.	Amount expended in previous years.	Amount expended in 1855-56.	Total expenditure.	REMARKS.
1853-54	38,760	9,103	47,863	Canal still requires deepening; the harbour works in progress.
1854-55	13,36,788	1,23,804	14,60,592	350 miles constructed through the black cotton soil of Bellary and Kurnool, and 20 miles of made road repaired, Masonry works in progress.
1855-56	„	93,526	93,526	About half the timber required has been purchased and the iron work ordered from England all ready, and waiting for shipment.
1855-56	„	1,04,505	1,04,505	Out of 40 arches 22 were completed and the rest constructed up to springing. Rs. 66,505 were spent on this work out of Pagoda funds.
1847-48	79,326	6,977	86,303	Munzorabad road completed but the bridges in progress.
1854-55	10,000	19,365	29,365	In progress.
1855-56	4,161	20,864	25,025	Foundations nearly completed and the piers in course of construction.
1855-56	„	13,454	13,454	Two-thirds of the foundation and flooring laid.
1854-55	16,723	22,020	38,743	In progress.
1845-46	6,60,172	88,588	7,48,760	189½ miles distance.
1845-46	59,302	10,958	70,260	105 miles distance.
1853-54	14,438	7,031	21,469	46 do do.

STATISTICS OF EXPENDITURE ON THE GREAT WORKS FINISHED

NAMES OF WORKS.	District	Estimate.
Trunk Road No. 4, from Cannanore to Mysore viâ Perumbaddy............	Malabar and Coorg.	2,58,943
Trunk Road No. 5, from Vaniembaudy to Ponany........................	Malabar, Salem and Coimbatore.....	2,07,451
Trunk Road No. 6, from Madras to the Bengal frontier....................	Chingleput, Nellore, Guntoor, Rajahmundry, Vizagapatam and Ganjam.	7,84,815
Trunk Road No. 7, from near Ongole to Pondigul S. bank Kistnah..........	Nellore and Guntoor.......	1,34,021
Trunk Road No. 8, from Madras to Trichinopoly....	Chingleput, South-Arcot and Trichinopoly.	7,55,877
Trunk Road No. 9, from Pauprumpett to Combaconum..........................	South Arcot and Tanjore.........	2,53,968
Trunk Road No. 10, from Arcot to the Mysore frontier beyond Palmanair....	North Arcot...	1,11,278
Trunk Road No. 11, from Chittoor to Cuddapah...........................	North Arcot and Cuddapah......	1,89,620
Trunk Road No. 12, from Mahal to Bellary................................	Cuddapah and Bellary	1,02,260
Trunk Road No. 13, from Madras by Nuggery and Kurcumbaudy to Cuddapah..............................	North Arcot and Cuddapah......	22,402
BUILDINGS.		
New Barracks for the European Infantry Regiment........................	Secunderabad.	11,59,077
European Infantry Barracks Neilgherries with Subsidiary works..............	Jackatalla.....	4,00,000

CENTRAL OFFICE OF P. W.
FORT SAINT GEORGE,
11*th November*, 1856.

AND STILL IN PROGRESS IN THE MADRAS PRESIDENCY.—*Concluded.*

Year of commencement.	Amount expended in previous years.	Amount expended in 1855-56.	Total expenditure.	REMARKS.
	Rs.	Rs.	Rs.	
1848-49	2,19,324	12,512	2,31,836	68 Miles distance.
1848-49	1,51,761	13,367	1,65,128	279 do do.
1846-47	4,57,917	2,85,913	7,43,830	686½ do do.
1854-55	11,526	71,722	83,248	91 do do.
1846-47	3,46,030	26,707	3,72,737	183 do do.
1852-53	1,51,479	7,109	1,58,588	75¾ do do.
1850-51	92,090	15,303	1,07,393	65 do do.
1849-50	69,235	99,228	1,68,463	99 do do.
1854-55	11,833	24,000	35,833	119½ do do.
1854-55	6,786	7,299	14,085	163 do do.
1854-55	2,46,134	3,60,673	6,06,807	In progress
1851	3,09,923	1,20,077	4,20,000	One range of Barracks will be completed within six months and a second within twelve; married and Staff Quarters will be commenced immediately.

(Signed) C. E. FABER, Colonel,
Chief Engineer.

STATEMENT SHOWING THE FINANCIAL RESULTS OF CERTAIN REMUNERATIVE WORKS.

Districts.	Name of work.	Amount expended.	Average Revenue previous to the above expenditure.	Average Revenue subsequent to the above expenditure.	Increase.	Per centage.	Remarks.
		Rs.	Rs.	Rs.	Rs.	Rs.	
Rajahmundry and Masulipatam..	Godavery Annicut project................	34,97,026	19,93,629	24,39,115	4,45,486	14·4	The average Revenue given is for the entire District of Rajahmundry. It is stated in Captain Rundall's report that there are no results to record of any works in the District either irrigation or non-irrigation except those connected with the whole system of the Annicut works.
Masulipatam and Guntoor..	Kistnah Annicut project................	12,29,476	69,381	1,11,001	* 41,620	3·3	The Annicut only came into full use this year. Few new Channels are yet in operation and many prejudices have to give way before the water made available, will be fully taken advantage of.

* The above shows the increase in the two Talooks of Baupetlah and Poonoor only, the other Talooks of Guntoor not having received water, and it being impossible to show any return derived from Masulipatam where although a great extension of wet cultivation took place, no addition was made to the village rents, nor any rate charged for the use of water. It is supposed that at least 5,000 new acres of land were brought under irrigation in the Goodewadah Talook alone, but owing to the want of a survey and to the joint rent system no accurate measurements even are procurable.

Nellore.	Pennaur Annicut	93,861	0	0	19,080	20·3	This increase of Revenue is from Jafer Saib's Channel which alone is under the influence of the Annicut, none of the subsidiary Channels have been commenced up to the end of 1855-56.
North Arcot.	Gajoolamundim Tank	600	893	1,193	300	50·0	
	Amoor Tank	510	818	1,955	1,137	22·2	
	Mantangul Tank	533	366	455	89	16·7	
	Kemparazapooram Tank	1,275	2,816	2,859	43	3·3	
	Gollapully Matanda Coopum Tank	549	24	41	17	3·0	
	Aureyoor Tank	755	1,301	1,577	276	36·5	
	Agaram Chairy Tank	500	1,087	1,089	2	0·4	
	Vasuntauday supplying Channel	596	257	433	176	29·5	
	Poloor Tank and Channel	1,541	1,590	3,776	2,186	141·8	
	Mandeemungalum Tank	1,458	1,213	1,543	330	22·6	
	Seroovulloor Dam	681	1,045	1,423	378	55·5	
	Vullumtengary Hissa Tank	530	757	1,031	274	51·6	
	Pooreesgy Tank	2,267	977	2,125	1,148	50·6	
South Arcot.	Coleroon Lower Annicut and its dependencies	4,95,924	1,38,306	2,40,346	1,02,040	20·5	
	Vellaur Annicut and its dependencies	1,68,350	37,627	57,774	20,147	11·9	
	Ragavien Channel	15,807	20,903	21,833	930	5·8	
	Trivady Annicut	14,613	20,129	23,540	3,411	23·3	
Trichinopoly.	Constructing a Calingulah in the bank of Rajahcolum Tank at Vellanjar Conad Talook	89	85	98	13	14·6	
	Constructing a Sluice on the bank of Pappacoodycolum Tank in Easwaren Covil Village	160	95	109	14	8·7	
	Constructing a Sluice in the bank of Tank of Cottapolliem	89	4,102	4,230	128	143·8	
Tanjore.	Widening Moolliar	7,094	35,382	41,672	6,290	88·6	
	Harrichendraudy Annicut and Talanayer Cotagum	4,566	13,073	21,648	8,575	187·8	

STATEMENT SHOWING THE FINANCIAL RESULTS OF CERTAIN REMUNERATIVE WORKS—Concluded.

Districts.	Name of work.	Amount expended.	Average Revenue previous to the above expenditure.	Average Revenue subsequent to the above expenditure.	Increase.	Per-centage.	Remarks.
		Rs.	Rs.	Rs.	Rs	Rs.	
Tanjore..	New Moolliar connected therewith.....	5,212	25 714	28,827	3 113	59·7	
	Improvement of Mercalkaray river..........	8,60?	56,462	58,859	2,397	27·8	
	South Rajah Voikaul......	45,126	1,26,983	1,40 471	13,488	29·8	
	Kaurah voikaul Annicut.........	2,205	8,997	10 448	1,451	65·8	
	Cundra[illegible]anicum do.	3 086	8,250	9,835	1,585	51·3	
	Vadoovoor Tank improvement...............	2,802	1,631	2,719	1,088	38·8	
	Upper Coleroon Annicut......	1,28,259 }	28,71,443	29,83,405	1,11,962	53·6	
	Cavery Dam and improvement of Upper Coleroon Annicut..	80,359 }					
	Meratoor Annicut and the works connected with it............	24,235	37,166	47.555	10,389	42·8	
	Chelloor Aunicut across Vettaur	3,712	25,388	26,431	1,043	28·0	
	Moolliaur Annicut and head sluice improvement of Iyanaur and Hurrichendravady.. ..	2,990	94,440	94,863	423	14 1	
	Arasalar Annicut for the benefit of Nauttaum Voikaul and other works	8,269	1,44,495	1,50,538	6,043	73·0	
Tinnevelly. ..	Trima Cottah works......	1,581	590	2,887	2,297	145·2	
	Vulleyoor. New Tank.......	4,862	0	1,404	1,404	28·8	
	Padliar Colum Tank.....................	2,051	2,376	2,630	254	12·3	
	Rathapoorum Neddoocolum....	1,114	265	414	149	13·3	
	Peroongoody Dalavoycolum.....	1,288	630	863	233	18·0	
	Satancolum........	959	105	331	226	23·5	
	Caroombandien Channel..........	6,655	52,034	63,017	10,983	165·0	
	Mangoonairy Pereacolum.........	2,360	9,474	14,469	4.995	211·6	

Tinnevelly...	Pantacoorchy Mailcolum	856	863	1,226	363	42·4	
	Do. Keelacolum	1,284	1,121	1,571	450	35 0	
	Goonaramanulloor Angaroycolum	917	356	542	186	20·2	
	Codeecoorchy Rajahvincolum	1,334	1,028	1,233	205	15·3	
	Paupagoody Paupencolum	717	109	643	534	74·4	
	Terootangal Pareacolum	1,401	101	579	478	34·1	
	Amatoor Pereacolum	851	0	188	188	22·0	
	Carasairy Vapencolum	687	27	65	38	5·5	
	Coonoor Dam	899	2,132	2,948	816	90·7	
	Yatharcotay Gopaulsamoodrum Tank	563	116	201	85	15·0	
	Cochrane's Canal	7,866	0	20,593	0	0	The amount expended was on repairs, &c. The entry under the head of average revenue denotes the gross collections from tolls during the official year 1855-56. The net receipts were therefore Rs. 12,727.

Central Office of P. W.
Fort Saint George,
11th November, 1856.

(Signed) C. E. FABER, Colonel,
Chief Engineer.

LIST OF SELECTIONS

FROM THE

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PARTS ALREADY PUBLISHED.

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2.	Report on the Government Central Museum	*do.*	0	12
3.	Report on the Proposed Abolition of the Madras Mint	*do.*	0	12
4.	Report on the Paumban Channel	*do.*	0	8
5.	Collective Memorandum of Public Works in the Madras Presidency	*do.*	1	0
6.	General Report of the Road Department	*do.*	1	0
7.	Report on the Swinging Festival and Walking through Fire.	*do.*	0	10
8.	Report on the Proposed Plan for the Revenue Assessment of Kurnool in 1843	*Royal 4to*	1	0
9.	Report on Important Public Works for 1851	*Royal 8vo*	1	0
10.	Do. do. do. do. 1852	*do.*	2	0

1855.

No.	Title	Size	Rs.	A.
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2.	Memo. of Proceedings of the Madras Government in the Department of Education	*Do. bound*	5	0
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1856.

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